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# JIDA

Journal of the Irish Dental Association  
*Iris Cumainn Déadach na hÉireann*



IDA  
irish dental association

A close-up photograph of a white dental model of a human jaw. A yellow pencil is held horizontally across the teeth, with its tip pointing towards the left. The background is a soft, out-of-focus white.

## A GOOD IMPRESSION

How to instruct your dental  
technician/laboratory

**IN THIS ISSUE: IDENTEX 2016 PREVIEW**

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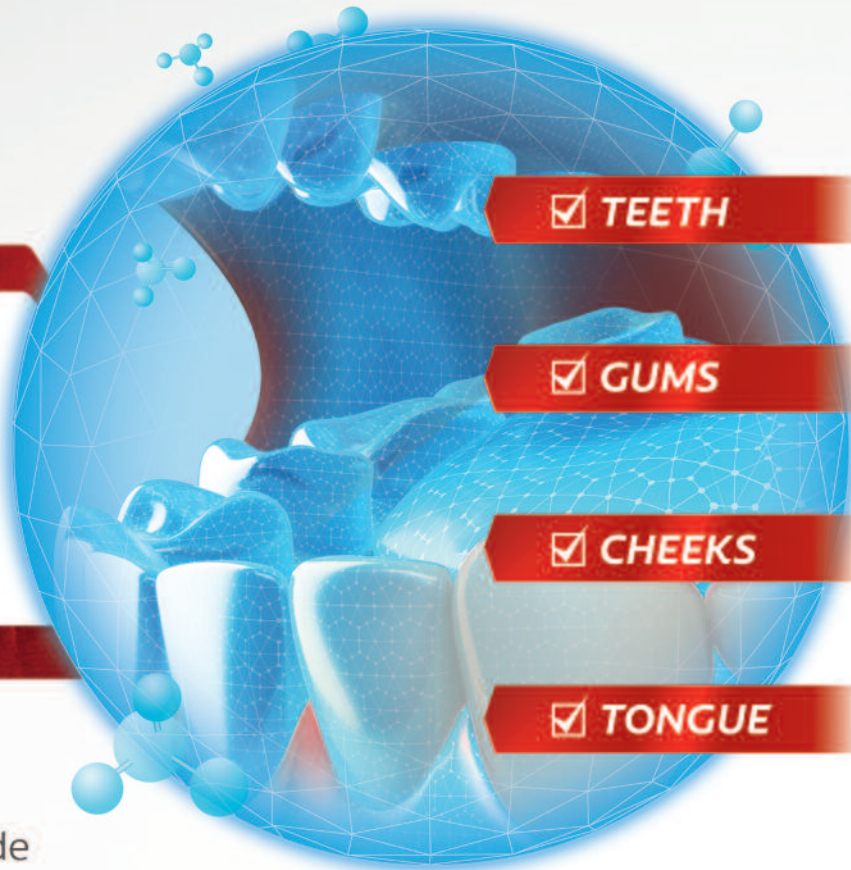
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References: 1. Fine DH, Sreenivasan PK, McKiernan M, et al. *J Clin Periodontol.* 2012;39:1056-1064.

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Leo F. A. Stassen

Prof. Leo F. A. Stassen  
Honorary Editor

## Role play

The actions of dentists can have very positive effects on the lives of their colleagues, as well as the quality of life of their patients.



## EARLY DETECTION MATTERS



Mouth Cancer Awareness Day (MCAD) takes place this year on Wednesday, September 21. I wish to join with the organisers in making a plea to all dentists to tell every patient in their practice on that day about MCAD. The organisers would be most grateful if dentists would carry out the short mouth cancer test on every patient and advise them of the risk factors – especially alcohol and tobacco. Patients should be told of the importance of regular tests for mouth cancer. The importance is very simple – there are more than 300 cases of cancer of the oral cavity and pharynx reported in Ireland every year. Not only is the incidence rising, but these cancers are still being detected at an advanced stage. Detecting an oral cancer at an early stage can make a huge difference to the quality of life of the patient after treatment, and sometimes to the prospects for survival of the patient. Dentists have a key role to play in the early detection of mouth cancer and in the prevention of the disease by identifying those patients who are exposed to risk factors. There are excellent materials available to dentists on the ‘Educational materials for the day’ section of the [www.mouthcancerawareness.ie](http://www.mouthcancerawareness.ie) website, including a presentation on how to conduct a mouth cancer examination and a referral pathway guide. I recommend them to you and humbly ask that you participate as fully as possible in our efforts to improve awareness and early detection of mouth cancer.

### Role models and association numbers

Having someone to help you in life, professionally or personally, is always likely to have a significantly greater impact on you than any amount of formal learning. It is evident from the interview with our new President, Dr PJ Byrne, that role models have played a really important part in his development. That he acknowledges their influence so generously is a message to all of us that we can help our colleagues – and especially that we can have a lasting influence on the work of our younger

colleagues. It is also clear that the Association is in very good health and that message is confirmed by the figures in the IDA Members’ News on page 205 (included for members only). Given the monetary savings well in excess of the cost of subscription, membership will continue to increase and politically, this gives added weight to the views of the Association when discussing new contracts with the Minister for Health and his officials.

### IDENTEX 2016 and IDA Autumn Meeting

Two days of exhibition, courses and workshops will take place at the Citywest Hotel in Dublin over September 16 and 17 next. It’s a great showcase for the exhibitors, most of whom are supporters of the *Journal of the Irish Dental Association*. We are grateful for their support and join with Peter Morris, President of the Irish Dental Trade Association, and his members in encouraging dentists and their teams to attend. The IDA Autumn Meeting takes place at IDENTEX and includes workshops on medical emergencies and on infection control. There will also be half-day hands-on courses on compeoneers and endodontics.

### Scientific content

Our excellent series of clinical features continues in this edition with a step-by-step guide for proper instruction of your dental technician or laboratory. We are grateful to Paul Dowling, dental technician, for the clarity of his article. Dr Mohammed Nasser Alhaji and Dr Juan Ramos Marquez outline a simple technique to evaluate denture border extensions using silicone impression material in their peer-reviewed paper, while Dr Cian Henry gives a case report and discussion on a diagnostic dilemma with a non-healing extraction socket. As always, we appreciate their contributions to the *Journal*.

# PLAQUE CONTROL: 'GOOD' CAN BE BETTER



## THE PROVEN ORAL CARE COMBINATION

A combined analysis of 29 clinical studies on essential oils has been published in the *Journal of the American Dental Association*.

This showed that after 6 months of using **LISTERINE®**, after brushing and inter-dental cleaning, **37%** of patients had at least half their mouth free from plaque, compared with only **5.5%** of those who just brushed and used inter-dental cleaning.<sup>1</sup>

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#### References

1. Araujo MW, et al. *J Am Dent Assoc* 2015;146:610-622.

2. Johnson & Johnson. Data on file.

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## Reasons to be cheerful

A meeting with the new Minister for Health, the enthusiasm of members attending CPD, and the ongoing success of the DCRS are causes for optimism in the profession.

### Meeting with the Minister

Our recent meeting with the new Minister for Health, Simon Harris TD, offered us a chance to discuss the many oral health plans contained in the Programme for Government. Importantly, it also enabled us to explain the huge untapped potential dentists can offer, in preventing dental decay and disease, but also in detecting and educating patients about broader health problems.

It was refreshing to see that the Minister was receptive to our carefully crafted suggestions while also appreciating the legacy issues for many dentists, which linger from the unilateralist approach adopted by the State from 2009 onwards. I am convinced that there is much to build upon and, importantly, that there is a will to build a new approach to working with the profession on the part of the Minister. It is up to all of us to build on the goodwill apparent on all sides, and to exhaust every effort towards realising the huge potential dentists can offer patients and the public at large.

### DPL Managing Clinical Risk Road Show Ireland 2016

Our CEO Fintan Hourihan and I both participated in the recent DPL Road Show around Ireland, which took place between Tuesday, June 28, and Friday, July 1. We first visited Cork, where the event took place in The Marlborough Hotel, moving to the Castletray Park Hotel in Limerick the following day. Thursday's event took place in the Clayton Hotel, Galway, and on Friday we were in the Crowne Plaza Hotel, Blanchardstown, for the final presentation in the series. All of the events were extremely well attended, with almost 600 dentists in total attending, along with a small number of dental hygienists. There was a significant spread of ages, with many recent graduates and also many senior colleagues present. Fintan presented on the wider aspects of probity, which, as we all know from the media, is a particularly relevant topic currently in Ireland. There was great interest in the wide variety of topics addressed by Fintan and there was certainly something relevant to every practitioner in his excellent presentation.



I addressed the topics of 'Periodontal Risk Assessment in Clinical Practice' in my first presentation and 'The Periodontal Systemic Interface' in my second presentation after an excellent evening meal. Both of these presentations were illustrated with multiple case studies. The final presentations were on core risk management challenges and associated case studies, presented by Dr Stephen Henderson and Dr Sue Boynton of DPL. In all venues there were lively question and answer sessions with significant audience participation at all levels.

Despite the hard work and long hours involved, not to mention the travel (in the wettest driving conditions I ever remember), I came away with the feeling that this was indeed a very worthwhile undertaking and was of significant value to those attending. The events were extremely well organised by the DPL team, who must be congratulated on their exceptional organisational skills; despite all the hard work and travel, they were a good-humoured and fun team to be with on the road.

### Dental Complaints Resolution Service

The establishment of the Dental Complaints Resolution Service (DCRS) has been one of the most significant initiatives undertaken by the Association in recent years. The Service has now firmly established itself as an invaluable alternative to time-consuming, expensive and overly-formalised systems of redress, which have been a huge headache for both dentists and patients alike. The value of the DCRS is that the facilitator, Michael Kilcoyne, is there to enable the parties to reach a conclusion and this is very much the preferred outcome. Alternatively, he can assist the parties by suggesting a solution that they may ultimately find acceptable.

It is important to remember that this is a voluntary scheme and neither patient nor dentist is obliged to avail of the Service. However, our experience is that the vast majority of both dentists and complainants tell us that the Service has been a far better alternative to the Small Claims Court, the Dental Council or any of the higher courts.

## Conscious sedation graduates



*Congratulations to the recent graduates in the Postgraduate Diploma in Conscious Sedation in Dentistry, who received their awards from The University of Dublin on June 20, 2016. From left: Dr John Sullivan; Dr Caitriona Begley; Dr*

*Martha Dempsey; Dr Geraldine McDermott; Dr Miriam Quilty; Prof. Leo Stassen (Programme Director); and, Dr Mary Clarke (Programme Director). In absentia: Dr Joe O'Donovan and Dr Andrew Jones.*

## Euro star

Congratulations to our Editorial Board member, Dr Ciara Scott, who was presented with membership of the European Board of Orthodontics by Dr Guy de Pauw, President of the Board in Sweden in June.



## Irish Society of Dentistry for Children

### ISDC Annual Conference 2016

The Irish Society of Dentistry for Children (ISDC) held its annual scientific meeting on May 12 in Finstown Castle Hotel, Lucan, Co. Dublin. The theme for the meeting was 'Staying alive: the pulp in trauma and caries'. Professor Dennis McTigue gave a talk on the management of pulp following traumatic injuries. Drs Jim Coll and Suzi Seale reviewed the updated evidence for protection of pulp following caries in primary teeth. Patrice James from UCC was announced as the winner of the O'Mullane competition for her presentation on frequency of dental caries in 11 to 13 year olds. She was awarded the cash prize and silver medal personally by Professor Denis O'Mullane. The ISDC promotes excellence in child oral health and has planned many events during the year to help dental practitioners improve the care provided to children in their practice. Contact the ISDC on [www.dentistryforchildren.ie](http://www.dentistryforchildren.ie) to apply for membership or to keep updated on all our activities.

### DCRS launches Annual Report 2015

The Dental Complaints Resolution Service (DCRS) Annual Report 2015 was published in July. The report looks at the work of the Service last year, what was causing complaints and how they were resolved. The Report shows that the Service is resolving more and more cases every year and that even more disputes are now being resolved directly between dentists and patients, without the need for any outside intervention. If dentists or patients need advice on how to make or deal with complaints they can find information and contact details on [www.dentalcomplaints.ie](http://www.dentalcomplaints.ie).

### Diary of events

#### SEPTEMBER

16-17

**IDENTEX**

Citywest Hotel, Dublin

24

**Cardiac first response course**

Full details, including cost, from Grainne McQuaid in IDA House.

Radisson Blu Hotel, Dublin Airport

24

**Irish Academy of American Graduate Dental Specialists (IAAGDS) Annual Meeting – [www.iaagds.ie](http://www.iaagds.ie)**

Conrad Hotel, Earlsfort Terrace, Dublin 2

#### OCTOBER

28

**Modern concepts in ceramics, temporaries and all that jazz – Irish Academy of Aesthetic Dentistry (IAAD)**

Speakers are Dr Basil Mizrahi and Dr Josep Oliva. If you would like more information on this meeting, please call 021-494 1810, or email [iaad28oct16@gmail.com](mailto:iaad28oct16@gmail.com).

Kingsley Hotel, Victoria Cross, Cork

#### NOVEMBER

19


**Irish Association of Oral Surgeons – Annual Scientific Meeting**

Radisson Blu, Golden Lane, Dublin 8

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## X-ray licensing

All dental practices that have an x-ray machine must hold a valid radiological licence from the Environmental Protection Agency (EPA). The EPA has now gone paperless for all of its dental licensing activities. A website for the Environmental Data Exchange Network (EDEN), [www.edenireland.ie](http://www.edenireland.ie), has been developed to manage all licensing transactions. This is an important development for dentists as current dental radiological licences expire at the end of September 2016, and EDEN is now the sole gateway for applying to renew these licences. All new, renewed and amended licences are now issued to licensees via email in PDF format, with just the front cover of the licence posted out to licensees for display in their practices.

The EPA recently contacted all licensed dentists seeking confirmation of email addresses. A valid email address is needed to log into EDEN so it is important that the EPA has an accurate email address associated with each dental licence. From July to September, each dental licensee will be emailed their unique login details, full instructions on how to use EDEN and a step-by-step guide explaining how to apply for licence renewals or amendments. The EPA has set up a support team to help with the licence renewal programme. It can be contacted via [ORPedensupport@epa.ie](mailto:ORPedensupport@epa.ie) and will provide assistance in accessing EDEN or applying for a licence renewal. As all dental radiological licences are due to expire on September 30, please monitor your email inbox for your EDEN login details, which will be needed to renew your licence.

## QUIZ

Submitted by Dr Anne Twomey

“A spoonful of sugar helps the medicine go down” – Mary Poppins

### Questions

1. What is the WHO recommended daily intake of sugar for adults?
2. What is the sugar content of the following commonly used medicines?  
Gummy Vites  
Nurofen for Children  
Calpol  
Amoxil Paediatric Suspension  
Robitussin cough syrup  
Viscoplex Syrup  
Lemsip Cold and Flu  
Fortisip  
Fortijuice  
Ensure Plus
3. Which categories of patients are prescribed fortified food supplements (available on the GMS) and are at a high risk of medication caries?



Answers on page 224

## Oral Health in Ireland: A Handbook for Health Professionals

Second Edition 2014

Dental Health Foundation,  
Ireland

Oral Health Services Research Centre  
University College Cork



If you would like a free copy of Oral Health in Ireland, please email the Dental Health Foundation at [info@dentalhealth.ie](mailto:info@dentalhealth.ie)

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**'It is essential to reinforce the message that good oral health is of vital importance to the general health of everyone in Ireland. Every practice should have a copy of this.'**

**Dr Paddy Crotty - Dentist**

**'This publication ticks all the boxes by providing evidence based guidance on oral health promotion.'**

**Dr Mairead Harding, Deputy Director, Oral Health Services Research Centre, Cork**

## Moloney Award 2016

The Moloney Award was established in 2003 to recognise the outstanding contribution made by the late Dr Joe Moloney to oral health promotion in Ireland. Since 2015, the Award has been given to an outstanding Irish presenter/lecturer at the IDA's Annual Scientific Conference. This year's winner is Dr Pat Cleary. The specially commissioned Waterford Crystal Bowl was presented to Dr Cleary by Dr Paddy Crotty, Trustee, Dental Health Foundation.



From left: Ms Patricia Gilsenan O'Neill, Chief Executive, Dental Health Foundation; Dr Pat Cleary, Winner of the 2016 Moloney Award; Dr Paddy Crotty, Trustee, Dental Health Foundation; Dr PJ Byrne, President, Irish Dental Association; and, Ms Miriam Cleary. (Photograph: Paul Sherwood)

## Appointments at DMI

Dental supplier DMI has announced the opening of a new office and showroom in Cork city. The company said the new facility is in a convenient location in the Doughcloyne Business Park, which is only five minutes from Cork University Dental School and Hospital. With new facilities come new people and DMI has also announced the appointment of Richard Kenny and Rick Kenny. Richard is the new Regional Sales Manager for Munster and has worked in the dental trade industry for almost four decades. He is a graduate member of the Irish Marketing Institute and holds a certificate in dental trade studies. Rick Kenny is the Branch Manager for DMI's new Cork office. He has over 10 years' experience in the dental industry and has an extensive knowledge of dental products and materials.



Richard Kenny (right) and Rick Kenny.



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**WRIGLEY**  
Oral Healthcare  
Programme



# Bringing the oral healthcare message to life through the innovative 'Extra Tooth Booth'

By Catherine Waldron, Dental Hygienist

Recently I took part in the Wrigley's Extra Smile Back project, designed to bring the oral healthcare message to life for the public. Busy lifestyles mean that we are all snacking more often and putting our teeth under sustained attack from plaque acids throughout the day, which can lead to tooth decay over time. The aim of the Extra Smile Back project is to make the public aware of the benefits of chewing sugarfree gum as part of a good oral health regime.

Research has shown that chewing sugarfree gum such as Wrigley's Extra increases the flow of saliva and neutralises the acid caused by eating and drinking sweet things. All Extra gum is sugarfree and accredited by the Irish Dental Association.

As a part of the Extra Smile Back project for 2016, Wrigley wanted to bring this oral healthcare message to life in the minds of the Irish public. To do this, Wrigley executed an innovative campaign throughout the months of May and June, the 'Extra Tooth Booth'. Over 650,000 members of the public were exposed to the 'Extra Tooth Booth' in four different shopping centres over a number of weekends, and were encouraged to participate in a free plaque test assisted by Dental Hygienists from the Irish Dental Hygienist Association.

The plaque test involved coating the teeth with a fluorescent dye to highlight any plaque accumulations. The dye was applied by the participant with a cotton bud as instructed by myself or the other dental hygienists involved on the particular day. The dye was only visible when exposed to a strong blue light via an intra oral unit. The visitor was provided with a mirror so they could see for themselves any remaining plaque. This was a powerful visual tool that aided us in delivering the oral healthcare message. I was able to then advise the person how they might adjust their brushing routine to achieve a more effective clean. A personalised tooth chart was provided to each participant highlighting where they had missed, along with a leaflet, the Healthy Teeth Tips Guide, created by Wrigley containing oral healthcare messages regarding brushing, diet and the benefits of using sugarfree gum, as well as the importance of regular visits to the dentist.

The take home message contained within the Healthy Teeth Tips Guide was an integral part of the experience. The dental hygienists were able to also advise participants regarding any other oral healthcare related



*Catherine Waldron,  
Dental Hygienist*

questions the visitor had in our interaction with them. All visitors were provided with free samples of Wrigley's Extra. Children who were accompanied by their parents were provided with tooth brushing charts and stickers to record their brushing habits over a month.

We were very encouraged to see so many members of the public take part and be genuinely interested in learning more about how to protect their smile. There were varying degrees of awareness about plaque and the benefits of chewing sugarfree gum amongst the public, and feedback across all weekends indicated that the participants at the 'Extra Tooth Booth' found the whole experience very helpful and interesting. Many stated that they had learnt something new and were able to leave with a feeling of empowerment and motivation to maintain or improve their oral health.

The 'Extra Tooth Booth' empowered individuals to take action; by providing both a strong visual cue to rouse them into a sense of action about their oral healthcare, and by providing practical tips and solutions for people to use every day to give them a practical result whilst also reinforcing the need to regularly visit their dentist. It was a most worthwhile initiative and I was delighted to participate.

# Lifelong learner

New IDA President Dr PJ Byrne discusses the dental-medical interface, professionalism in dentistry, and the importance of strong role models.



PJ Byrne was first introduced to the idea of dentistry as a career on a golf course in Kerry. He and his father played regularly with a father and son duo of dentists (the O'Hanlons from Listowel), and they made a strong impression on the young Cork native.

"I was always very impressed by their knowledge of medicine – I saw that there was more to dentistry than just 'fillings'."

PJ's education began in the old Dental School in Cork and his first introduction to politics and activism occurred at that time too, travelling to Dáil Éireann seeking funding for the new dental school, which had been damaged by fire during construction. That experience taught him some valuable lessons.

Immediately after graduation from Cork in 1982, PJ began work in the Dublin Dental School as a house surgeon and later SHO, before moving to Shrewsbury in the UK to pursue his interest in oral and maxillofacial surgery. At that time, job opportunities in that discipline were extremely limited.

"It was just after the time when you could do oral and maxillofacial surgery as a singly qualified person; you would have to do medicine as well".

PJ thought long and hard about his career options, but helpful advice from

colleagues cemented his desire to remain in dentistry. He took up a position in a six-person dental practice in the UK, where they were looking for somebody with a special interest in oral surgery and periodontology, along with some general dentistry. He then returned to the Dublin Dental School as a registrar in oral surgery, before heading back to the UK, this time to the Eastman Dental Institute in London to do a masters in periodontology, a long-held specialist interest.

## Role models and colleagues

The importance of influential role models is something PJ is keen to emphasise. Over the course of his career he has been fortunate to come into contact with many eminent figures in Irish and international dentistry, all of whom contributed enormously to his development as a clinician and teacher.

"Prof. Brian Barrett, Dean of the Cork Dental School, was a true professional and an inspiring clinician, who later became a Dean of The Faculty of Dentistry, RCSI. He was a superb role model for any young dental student. I was also encouraged by the enthusiasm of Prof. Louis Buckley, Professor of Periodontology, one of the few dentists in Ireland doing research in the 1970s. Tim Holland was such a caring

individual, a kind and patient teacher who also later went on to be a Dean in RCSI." He also mentions Conor O'Brien, who he first assisted operating in theatre, and Prof. Gordon Russell, who had a strong focus on oral medicine and the medical-dental interface, something that is extremely important to PJ, but more of that later.

"Hugh Barry at the DDUH was a great teacher and a great surgeon – he had superb attention to detail in terms of soft tissue management. He was great to work for and later with. After all the years, during a difficult surgical procedure I still can hear his voice in my ear suggesting a solution in his dulcet Cork tones."

Moving to London to undertake a masters in periodontology, PJ came under the influence of clinicians like Dermot Strahan and Bernie Kieser ("a great thinker but a superb clinician"), along with many other influences, particularly with the multidisciplinary approach to care. PJ stayed on to work in the periodontology department at the Eastman after completing his masters. Before returning to Dublin in 1991, he had completed his Fellowships in Edinburgh and in the RCSI, Dublin. He joined the practice in Leeson St of Dr Leo Heslin (a previous President of the IDA and then Dean of the Faculty of Dentistry). His long-term collaboration with Dr Gerry Cleary started again there when Gerry moved back from Indiana to work with Dr Colm O'Sullivan, who was also a previous President of the IDA and Dental Council. PJ had first worked with Gerry Cleary in the DDUH (then the DDH) from early 1983. After Dr Heslin's tragic death in 1992, PJ took over the practice, and in 1996 moved it to its current location on Dublin's Merrion Road. PJ now shares the practice with his wife, Dr Johanna Glennon, who is an endodontist. He also benefits from other long-term collaborations with many colleagues, as does his teaching on the postgraduate programme in the Dublin Dental School.

"I am surrounded by a fantastically loyal, skilled, hardworking and dedicated team in the practice. Multi/interdisciplinary dentistry is the second love of my dental life. I do a joint clinic with Joanie, Gerry Cleary, Therese Garvey and other colleagues. Gerry, Therese and I also teach together in the DDUH on the postgraduate programme. It's a fantastic way to teach, and a great example to set to new postgraduates, to encourage them to work together as a team. This is what dentistry has to be – it can't be isolating. Continuing to teach and lecture right through my career has been a great benefit."

A significant chapter of PJ's professional life opened when he was elected to the Board of the Faculty of Dentistry RCSI in the late 90s, going on to become Hon. Editor, Chair of the F&GP Committee, and then being appointed as Vice Dean and ultimately Dean from 2007-2011.

"This indeed was an extremely challenging role, involving significant time and travel input, lecturing, attending meetings and negotiating in many countries, but particularly in the Middle East and New York. While very demanding, it was a wonderful, fulfilling experience, which certainly changed my life, but I could not have done this without the enormous support from my fellow Faculty members and previous Deans, but especially the huge support given to me by my wife Joanie."

### Presidential priorities

PJ's involvement with the Irish Dental Association is a longstanding one, dating to his undergraduate years. He speaks very highly of those early branch and national meetings, where he got to hear inspiring speakers in his own and other disciplines, and saw valuable examples of how to combine teaching with his "practising life". He was also hugely impressed by the way the Association brought professionals together, and how welcoming it was to undergraduates.

PJ has a number of priorities that he wishes to pursue during his year as IDA President. Chief among these is the promotion of a more holistic approach to dentistry, specifically through a risk-profiling initiative. This is where his interest in

the medical-dental interface comes to the fore, and is an approach that he has promoted, and implemented in his own practice, for many years.

"We need to see dentistry in a broader context, in terms of its relationship to chronic diseases like cardiovascular disease, stroke, diabetes, arthritis and other conditions. The common risk factors for these conditions can be identified in our practices and we can use this knowledge to improve the quality of life of our patients."

This can involve everything from lifestyle and health advice, to referral to the appropriate medical professional. PJ feels that the unique relationship between dentist and patient makes this a perfect approach, with research showing that on average, patients stay with the same dentist in Ireland for well over a decade.

"That is a very significant finding. It allows us to strategically plan for our patients' general health as well as their oral health."

He has developed risk-profiling questionnaires, which he asks patients to fill out, and he feels that in an ideal world some form of risk profiling would take place in every dental surgery. The questionnaire should be detailed, but patient focused: not too long, and in plain English. PJ favours a simple, 'tick box' approach, making it easy for patients to fill out, and for dental professionals to instantly identify the risk factors and formulate a strategic plan for the patient's oral health based on the risk profile revealed. He recently began to roll out this initiative by presenting on the topic at a series of Dental Protection roadshows around the country (for a report on the roadshows, see the President's report and pages 206-207 of the Members' news).

He also brought the initiative to the attention of new Minister for Health Simon Harris TD at the Association's recent meeting with him, and feels that it was received very positively.

"I was very impressed by the new Minister. He didn't need to be convinced about the links between oral and systemic health, and he has asked that we would have a follow-on meeting about this particular initiative. This is a major initiative, and one that I hope will be a legacy for the future."

### Professionalism

Professionalism within dentistry is another area that PJ is keen to promote.

"Dentists are extraordinarily professional, but commercialism is one of the biggest challenges facing dentistry. We need to match commercialism with professionalism – they can and must work together in the business of dentistry."

Key to this is a focus on CPD backed up by legislation in the form of the new Dental

### The eye of the beholder

PJ's interest and expertise in photography is well known to fellow dental professionals, as he lectures in clinical photography in the DDUH, teaching it as a core aspect of the postgraduate course since 1998. It's an interest that dates to his childhood, but became professional when he adapted a camera given to him by his father for use in the clinic.

"Clinical photography has been a huge part of my practising life. It's been a fantastic benefit to me as a lecturer – the ability to record and document cases, and to see outcomes over time, has taught me a huge amount. I also genuinely love photography as a hobby."

In recent times, PJ has become a keen equine photographer. What began as a way to pass the time while watching his daughters, both keen riders, has become an interest in itself, and as our interview took place during Horse Show Week, he was looking forward to some excellent photographic opportunities.

"I'd always have the camera – it's part of me."

Act. For PJ, the IDA's role here is crucial, in two respects. The first is in preparing its officers and staff to meet the challenges ahead.

"The IDA is a very strong organisation. Our governance is very good but there is no governance that can't be improved. We need to, for example, formalise support for our committee members and officers. We can no longer afford to be enthusiastic amateurs – we must be consummate professionals in our IDA involvement as well as in our professional lives."

PJ is very keen to acknowledge the huge workload and commitment of the officers of the Board and Council, along with the Chairs of the various Committees of the IDA. He cites media training, or training in chairing a meeting or a committee, as examples of the kind of intervention that would be helpful, and compliments the Association on what has already been achieved, including the new Governance Manual, currently in preparation.

"I commend Fintan Hourihan on his role in developing the governance document – we are very fortunate to have someone of his calibre in the Association at this time of change in dentistry."

He also speaks very highly of Assistant CEO Elaine Hughes and the rest of the staff in IDA house: "We're extremely fortunate to have such a team and we need to develop and nurture that team".

The second aspect of the IDA's role is in assisting members in responding to the increasing challenges of legislation and regulation in the most professional way possible. The Association has instituted a number of measures to support members in dealing with issues such as employment law, and the increasing levels of regulation faced by dentists in their practice. PJ feels that this is a crucial part of its remit, complementary to the role of the dental schools, and something that should begin while students are still at undergraduate level.

"The training provided in our dental schools is first class, and I believe it is the role of the IDA to get involved at that early stage. I would love to see student members of the IDA. The IDA is our representative organisation. It's an organisation that looks after us as clinicians and provides us with a huge amount of support. Regulation is here to stay and there will be more of it, and that's why we need good guidance. The IDA takes all the information out there and focuses it for our profession into industry-specific advice and support."

He draws particular attention to Dr Eamon Croke and the Quality and Patient Safety Committee, which has done tremendous proactive work in preparing dentists for regulatory change, and supporting them in implementing new policies and practice.

### Lifelong learning

As a lecturer and longstanding member of the IDA's CPD Committee, lifelong

## Perfectionist

Without doubt, one of the major influences in PJ's life is his father, Pat. An analytical chemist who spent his career working with the ESB, Pat is 86, and lives a full, and curious, life.

"Dad is still a consummate perfectionist, and is himself a keen photographer and very regular golfer. He's been an extremely motivating influence on my life. He continues to learn. He is totally competent in computing and taught himself video editing, and will regularly drive across the country to fish or play golf. He has a great saying that has been an enormous influence on me: 'There is no such thing as a problem – only an opportunity for a solution'. He's a great role model for me, and also for my children."

learning is another priority for PJ, and one where future proofing is all important.

"I am looking forward to opening and lecturing at the HSE Dental Surgeons Seminar in Athlone on October 6, where I will address the topic 'The Periodontal Systemic Interface'. One of the things I feel that I can contribute to the IDA is to try and capture a vision of the future and bring a focus on education into the future. There has been a quantum change in the way CPD is delivered, and we must balance the good things in our current CPD approach with looking at the way we learn into the future. We will need to look at individualised, multimodal opportunities for learning, and build a system that will be ready to incorporate technology and resources we don't yet have."

He is delighted that the IDA's CPD learning management system is now up and running, and sees it as crucial to building a system that can deal with any aspect of learning, including more flexible options that take account of busy personal and family lives.

"We need a vision way down the tracks and that is something I would very much like to drive [in my Presidency]. Mandatory CPD is coming – and the IDA is well ahead of the curve in putting structures in place to support that."

### Politics

We are currently living in very interesting political times, both at home and abroad. As stated earlier, PJ was very happy with the Association's recent meeting with the new Minister, and with contract negotiation on the horizon, that can only be a good thing.

"I felt the meeting went particularly well. The Minister said we need to think differently, to meet before we negotiate, and I found that very refreshing."

He is confident of a positive outcome, not least due to what he describes as a very vibrant group of IDA officers and officers designate, which brings a balance of young, fresh ideas and experience to the table. Asked if he thinks the Government has been listening to the views of dental professionals, his answer is a cautious yes, at this initial stage, cautious because that would not have been the case in the past. "In light of the outcome of the Supreme Court ruling, we need to think very carefully about negotiations with regard to State schemes into the future."

The issue of the mooted sugar tax is an interesting example of how Government policy must take into account the expertise of professionals.

"On its own [a sugar tax] is not meaningful. We must educate before we legislate. And, of course, revenues raised from such a tax must be ploughed back into health and education."

He praises his predecessor as IDA President, Dr Anne Twomey, for her work raising awareness of the dangers of sugar consumption, particularly hidden sugars. These issues need to be tackled in a comprehensive way, again coming back to the links between oral and general health.

"Diabetes is huge concern, as is obesity, and a sugar tax won't tackle those. The sugar tax is likely to happen but should be a very small part of a much more comprehensive strategy, and the dental profession has a role here, particularly in education, because we have the expertise."

## Personal

PJ and Joanie celebrate 30 years of marriage this year, and when not practising, lecturing, or attending to IDA commitments, his time is very much taken up with their two daughters: Joanie, 18, and Anna, who is 14.

He also loves to travel, particularly, in recent years, in Canada. Unsurprisingly, he always brings the camera.

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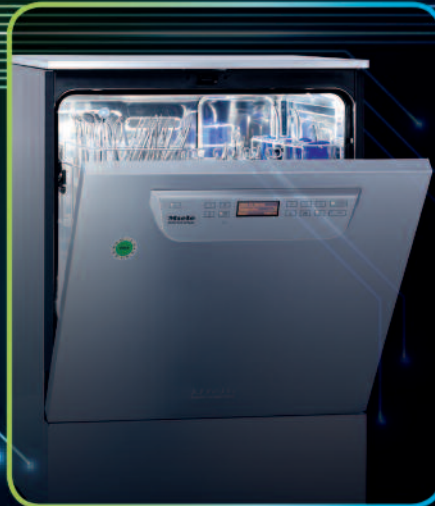
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**16<sup>th</sup> & 17<sup>th</sup> September 2016**

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# IDENTEX - full of innovation and development

The IDA and the IDTA continue their partnership at IDENTEX 2016, where high-quality CPD and the cutting edge of dental technology meet.

For the third year in a row, the Irish Dental Trade Association's (IDTA) trade exhibition, IDENTEX, will partner with the IDA's Autumn Meeting to provide two days of exhibitions, courses and workshops. The event returns to the Citywest Hotel, Dublin, on September 16 and 17, 2016, and once again will be packed with exhibitors and speakers with everything to improve dental practices and the skills of the whole dental team. The major names in the dental trade will be there, exhibiting their latest technology and innovations. There will be demonstrations and professionals from companies on hand to answer any questions or queries you may have. The IDA Autumn Meeting will feature workshops and courses, with CPD points on offer for attendees. There will be half-day, hands-on courses in endodontics and compeeners run by Dr Lynda Elliot and Dr Garry Heavey, respectively. There will also be two workshops: one on medical emergencies, presented by Survival Linx, and one on infection control, brought to you by Henry Schein. For convenience, all workshops and courses will run at least twice. Booking as early as possible is advised.

There will also be a lecture by Dental Protection's Dr Adrian Millen. Dr Millen is a Dento-legal Adviser and will speak about 'Complaint handling for the dental team'. The lecture will take place on the Saturday from 2.30pm-3.30pm and one Dental Protection Risk Credit is available for attendance.

Peter Morris, President of the IDTA, said as always he is looking forward to IDENTEX: "The two days at IDENTEX are what the members of the Irish Dental Trade Association look forward to all year.

"It gives us the best opportunity to showcase directly to dentists the products and services we've been working on developing and improving for the previous 12 months. We encourage you to bring your dental team along as walking around the conference centre can often inspire new ideas to improve practices. We look forward to welcoming you to IDENTEX 2016."

President of the IDA, Dr PJ Byrne, said: "In its third year, the combining of the IDTA Trade Show and the IDA Autumn Meeting is proving itself to be a great collaboration for both organisations. It offers dental professionals the chance to get high-quality CPD while also seeing what the dental services companies and manufacturers in Ireland and around the world have on offer. We encourage dental professionals to come along to the event and hope that everyone who attends finds it an enjoyable and informative experience".

## **IDA Autumn Meeting (rooms for workshops and courses not confirmed)**

There will be two workshops, one on medical emergencies and another on infection control. The infection control workshop will last for 45 minutes, while the medical emergency workshop will run for a half day. The two half-day courses in endodontics and compeeners will provide tuition from experts in each field.

For booking information, contact the IDA on 01-295 0072.

## **Medical emergencies workshop**

**Survival Linx** – A workshop designed to update dental professionals on how to manage patients presenting with a medical/cardiac emergency.

Price: IDA members – €200

Non-members – €400

Friday, 10.00am-1.00pm

Saturday, 2.30pm-5.30pm

## **Infection control workshop**

**Henry Schein** – This hands-on workshop will update dental professionals on the new Dental Council code of practice for infection prevention and control.

Price: IDA members – €60 dentist, €40 dental team member

Non-IDA members – €120 dentist, €120 dental team member

Friday: 11.00am-11.45am, 2:00-2.45pm and 4.00pm-4.45pm

Saturday: 11.00am-11.45am and 3.30pm-4.15pm

## **Compeeners: an alternative to porcelain? Hands-on course**

In this half-day course, Dr Garry Heavey will demonstrate the technique for placing compeeners. Participants will learn how to evaluate case suitability, the protocol for compeener placement, hands-on placement and how to review clinical cases. Dr Heavey has lectured widely on a number of dental topics and is current chair of the IDA CPD committee.

Price: IDA members – €250

Non-members – €500

Friday, 2.00pm-5.30pm

Saturday, 10.00am-1.00pm

## **Endodontic hands-on course**

Dr Lynda Elliot has a masters in endodontics and established the Crescent Clinic endodontic practice in Clontarf in 1995. She had also been president of the European Society of Endodontology. This course will teach clinicians to make suitable access cavities in molar teeth for endodontic treatment, to create glide path access in preparation for NiTi rotary preparations, plus more specialist endodontic training.

Price: IDA members – €250

Non-members – €500

Friday, 2.00pm-5.30pm

Saturday, 10.00am-1.00pm

## DMI at Identex

DMI say you can explore all your surgery possibilities and discover the latest innovations in dentistry at their stand at Identex. On display will be many Planmeca devices, which DMI state are world-class imaging devices suitable for all purposes. You will be able to see devices for 2D, 3D and intraoral imaging as well as cephalometry. Try out the Planmeca PlanScan and the company says you will see how quickly you can create and design 3D digital impression models.

There will also be the Carestream 81003D and new dental units such as the A-dec 300 and 500 models and the KaVo 1058.

DMI will also be showcasing a range of the latest innovations in sterilisation, consumables and small equipment. Join the company's representatives at stand 32-39 and talk to them about whatever vision you have for your practice and how the company can help.

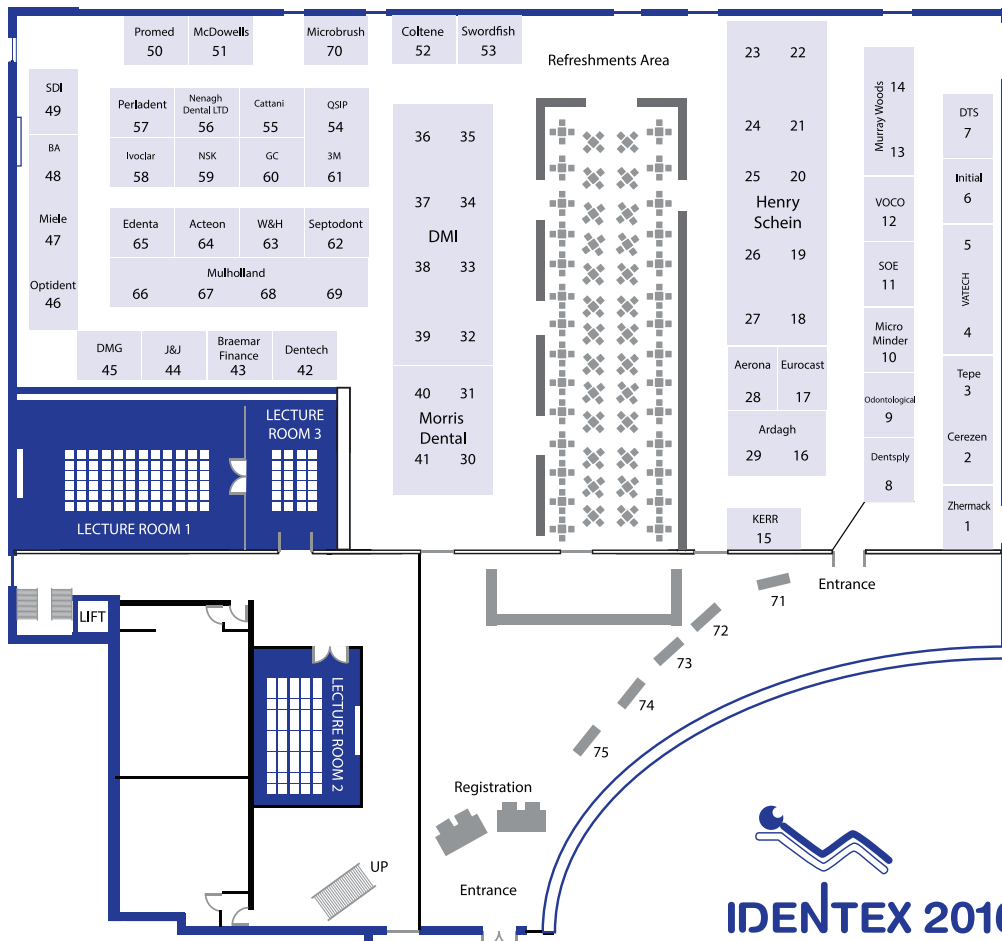
## Much on offer from Morris

Official Irish supplier of Belmont equipment, Morris Dental, will be exhibiting much of the manufacturer's range at Identex. If you buy any Belmont equipment during the trade show, it comes with a free extended five-year parts and labour warranty. Also on display will be the NSK iClave which, according to the company, is the best autoclave it has ever sold. There will also be NSK handpiece offers. You will be able to examine and evaluate many other products at the Morris Dental stand including: Acteon's PSPIX phosphor plate system; W&H handpieces and washer disinfectors; Metasys suction motors and amalgam separation units; Cattani compressors; the ITENA range of composites and luting cements; and, HELPie, a combined bite block, tongue deflector and suction all in one. The company will also be showcasing its full range of own brand products including their nitrile and latex gloves. The Morris Dental team look forward to seeing you at Identex stands 30/31 and 40/41.



Peter Morris of Morris Dental

## IDENTEX 2016 floorplan



COMPANY	STAND
3M	61
Acteon	64
Aerona	28
Ardagh	16+29
BA International	48
Braemar Finance	43
Cattani	55
Cerezzen	2
Coltene	52
Dentech	42
Dentsply	8
DMG	45
DMI	32-39
DTS	7
Edenta	65
Eurocast	17
GC	60
Henry Schein	18-27
Initial	6
Ivoclar	58
J&J	44
Kerr	15
McDowells	51
Miele	47
Microbrush	70
Microminder	10
Morris Dental	30, 31, 40+41
Mulholland	66-69
Murray Woods	13+14
Nenagh Dental Ltd	56
NSK	59
Odontological	9
Optident	46
Perladent	57
Promed	50
QSIP	54
SDI	49
Septodont	62
Soe	11
Swordfish	53
Tepe	3
Vatech	4+5
Voco	12
W&H	63
Zhermack	1



# Visit DMI at Identex 2016

Stand 32-39

16th- 17th Sept 2016

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Experience new state-of-the-art dental units such as the A-dec 300 and 500 models and the KaVo 1058.

DMI will also be showcasing a range of the latest innovations in sterilisation, consumables and small equipment and offering useful advice on equipment and waterline maintenance.

Join us at stand 32-39 and talk to our experts about turning your vision into reality.



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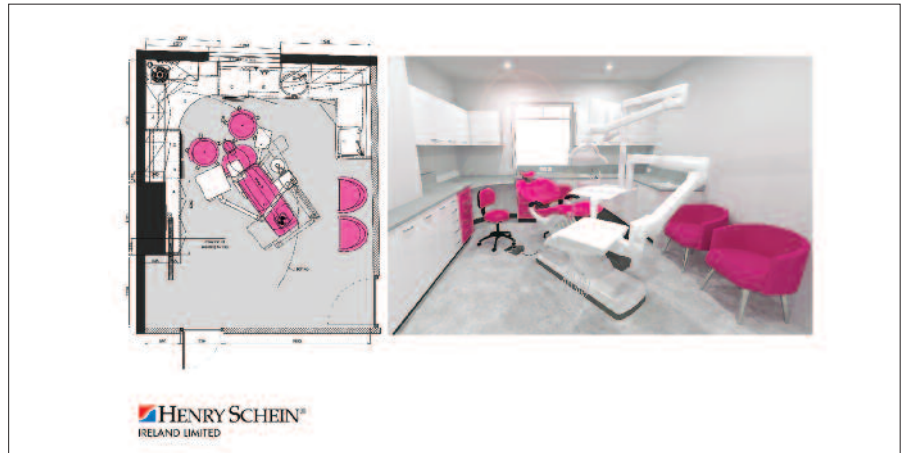
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## Guide to new practice installations from Henry Schein



Henry Schein Ireland says it offers dental professionals a comprehensive and highly competitive range of services and that its wide choice of practice equipment is able to accommodate all budgetary and practice requirements. The company states that its local equipment specialists can provide the advice and guidance you'll need to take advantage of technologies that will keep your business competitive and more productive. According to the company, these specialists will evaluate your requirements and help you choose equipment that is best suited to your practice goals and budget. One of the most important aspects of a successful new surgery installation is the planning. Henry Schein states that its equipment team will create a range of innovative layouts tailored to your tastes and practical requirements, or you can brief them with your own ideas. They will then prepare a detailed design with a computer-aided design (CAD) drawing system.

### Henry Schein's 10-step guide to a new surgery installation

- Contact your local Henry Schein Ireland consultant in Dublin or Cork.
- Arrange an initial consultation to discuss and identify your equipment and potential finance requirements.

- A Henry Schein Ireland equipment specialist will prepare detailed drawings and a proposal.
- Discuss the plans and amend where necessary.
- Choose final colour and any other options, then confirm order.
- Henry Schein Ireland will provide details and drawings relating to all building and services requirements. Naturally you will need contractors to organise all building work, including services.
- Organise painting, decorating and floor covering if necessary.
- Henry Schein Ireland will install cabinetry and equipment.
- A Henry Schein Ireland equipment specialist will provide staff training to ensure correct use of the new equipment.
- Start receiving patients.

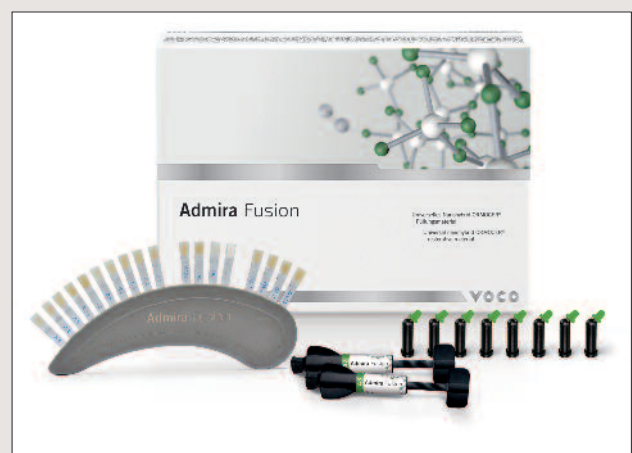
The company says it offers competitive prices and broad choice and that the benefits of dealing with Henry Schein Ireland reach beyond these.

## VOCO bringing its newest innovations to IDENTEX

VOCO says it will be bringing pioneering innovations and bestsellers to IDENTEX 2016. On show will be Admira Fusion, a new restorative material, which the company says has excellent compatibility, extremely low shrinkage, optimal colour stability and a high filler content.

The product is complemented by Admira Fusion x-tra and Admira Fusion Flow. VOCO says the three are compatible with all conventional bonding agents.

Also on display will be another new product, Ionolux, which is a light-curing glass ionomer restorative material. VOCO state that the material can be modelled with ease without sticking to instruments and adapts excellently to cavity walls. The company will also be bringing its product Futurabond U. VOCO says this product offers practitioners a range of options for application such as self-etch, selective-etch or total-etch. VOCO's representatives look forward to meeting you at stand 12.



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## New mandibular repositioning device

Promed, a leading supplier of dental and medical supplies in Ireland, is partnering with ResMed to launch the Narval mandibular repositioning device (MRD) in Ireland at this year's Identex. Visitors to Identex can meet Promed at stand 50. ResMed is one of the world's leading medical device companies and an innovator in sleep-disordered breathing and respiratory care. Narval CC is a next-generation, CAD/CAM, custom made MRD, which offers efficacy and comfort for patients who have mild to moderate obstructive sleep apnoea (OSA) causing snoring. It is also a solution for severe cases where the patient cannot tolerate conventional positive airway therapy treatments.

Promed has organised a course: "Snoring and the role of the GDP - aims and objectives" to be held on Friday September 30 at the Radisson Hotel Dublin Airport. Course presenter Dr Roy Dookun is the immediate past president and co-founder of the British Society of Dental Sleep Medicine (BSDSM), a board member of the European Academy of Sleep Medicine (EADSM) and is co-author of the BSDSM Snoring Pre-treatment Screening Protocol. There will be a special offer for visitors to Identex to book this course for €150.



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\*MF Vecchierini et al. A custom-made mandibular repositioning device for obstructive sleep apnoea-hypopnoea syndrome: the ORCADES study *Sleep Med*. 2015 Jun 29. pii: S1389-9457(15)00827-8. doi: 10.1016/j.sleep.2015.05.020

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# Breakage of endodontic instruments

Patients need to know that endodontic instruments can sometimes break.

Despite the increased flexibility of the new generation endodontic rotary instruments and a single-use protocol, Dental Protection regularly receives requests for assistance regarding complaints about broken or fractured endodontic instruments (instrument separation). For many years, the potential for fracture was considered an accepted complication of root canal therapy (RCT) and not in itself negligent. Times change and in many jurisdictions case law, in respect of consent, now requires the clinician to inform the patient about any material risk of their treatment to which they would attach significance.<sup>1,2,3,4</sup> This approach sits comfortably alongside the view of the Dental Council, published in its Code of Professional Behaviour and Ethical Conduct, which states:

*“You have a duty to explain to your patients the range of treatment options available and the risks associated with each option. You must give your patients enough information, in language they understand, so they can make informed decisions about their care”.*

With this in mind, instrument separation should be regarded as one of the risks patients would need to understand before they could consent to endodontic treatment. They should also be aware of the possibility of root perforation or failure of the treatment due to persistent infection. Sometimes it can be difficult to know just how much information our patients should be offered. The old adage of “tell them what they need to know as well as finding out what they want to know” still holds true.

## Consent and explaining the risk

One size of explanation does not fit all if the clinician is to ensure that they have obtained valid consent from the patient sitting in the chair about to undergo endodontic treatment. Naturally, all the preoperative considerations that are discussed should be detailed in the clinical records. The records should also include the clinical and radiographic assessment of the tooth, the degree of root curvature, and the patency or sclerosis of canals, which could increase the likelihood of file separation. If you anticipate the possibility of such a risk materialising, then an explanation as to how the situation would be managed should be offered to the patient in advance and a note made. Informing patients in a manner that maintains their trust is of utmost importance. As with all risk management, communication is the key. The difficulty arises in describing the likelihood of the event. One might argue that, in the hands of a specialist endodontist, the incidence of file separation may be less than in the hands of a dentist who is using a new endodontic file system with less hands-on experience. But regardless of specialisation, the incidence of file breakage can be minimised by careful pre-operative assessment of the tooth.

## Should you refer all endodontic treatment to a specialist?

Ideally, the following situations might be considered for referral to a more experienced colleague with enhanced skills and equipment:

- a patient with limited mouth opening;
- a tooth with a crown disguising the original anatomical landmarks; and,
- a root with curvature greater than 30 degrees or an “S” shaped canal.

## Protect yourself

A complaint or claim can only be defended if there is evidence that the information has been given to the patient and, more importantly, that they have understood it. A signed consent form in the absence of discussion will not normally suffice for purposes of consent. A detailed discussion followed by inviting the patient to ask

questions can promote a conversation, with the end point being that the patient has given valid consent. Making an appropriately detailed note in the records will provide evidence of this.

## Minimising the occurrence

- Update your clinical skills, and understand the limitations of new endodontic systems;
- use magnification, achieve straight line access and adequate canal lubrication; and,
- limit file use – follow the manufacturer’s instructions.

## Management of a broken file

- Tell the patient and record this in the clinical notes;
- discuss the options for management, which could include removal of the separated piece, by-passing or leaving the fragment *in situ*, filling the root canal to the coronal level of the segment, or surgical intervention;
- risk assess the clinical situation as, for example, the presence of apical disease may reduce the prognosis in the presence of file fracture;
- note the stage of canal preparation when file separation occurs, especially in infected cases, and consider how much disinfection has been achieved;
- in the absence of apical disease and symptoms, leaving the file *in situ* may not reduce the prognosis;
- specialist referral should be considered, as magnification and expertise is often required; and,
- the decision-making process for management should be discussed with the patient in an honest and sympathetic manner. Don’t be pressured into trying to retrieve the fragment without adequate expertise and equipment, as the complications arising from this may be even more detrimental to the outcome and could lead, for example, to root perforation.

## Summary

Assess, adequately discuss and then document the chances of file separation prior to treatment in each case. Information given before the procedure constitutes a warning while gaining a patient’s valid consent, whereas the same explanation volunteered after a file separates is likely to be interpreted by the patient as an excuse for poor technique and may lead to a complaint or claim.

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# How to properly instruct your dental technician/laboratory

Communication is key when working with a dental technician/laboratory.

## Introduction

There are many challenges to face when a dentist prescribes a particular restorative solution to a patient. Their most reliable source of support to achieve the desired result starts with how they instruct their dental technician/dental laboratory. Success comes down to good communication and continuous education to understand the continual advancements that offer so many different and new solutions to the restorative process. The dentist's own experience, along with their thorough understanding of the technical procedures and the long-term hygiene maintenance required with dental appliances enables them to make good clinical decisions. Their understanding of dental laboratory procedures and technical and material science limitations allows them to choose the best compromise between technical restrictions, while balancing the aesthetic, functional, strength and biological factors that play a significant part in their decision. Communicating the correct requirements to your dental laboratory can be achieved in a number of different ways, but for most dentists the laboratory docket is the starting point. The information contained in this is vital for the technician to carry out the dentist's instructions. Inclusion of specific information makes the transfer of instructions much easier and this is where a sequenced approach really works.

It is very important to note that methods of communication have moved away from the conventional verbal or written formats, and now encompass digital photography, digital impressions and screenshots. Establishing a good working relationship between the dentist, the nurse/s and the dental laboratory allows for a point of

contact in the practice, which can help in the communication of effective instructions to the laboratory.

## The sequence

### 1. Lab docket

A clearly written docket detailing the work to be performed is essential and is part of the Medical Devices Directive, which by law both dentists and dental laboratories must conform to.

A wet, ink-running docket is very hard to decipher (Figure 1).

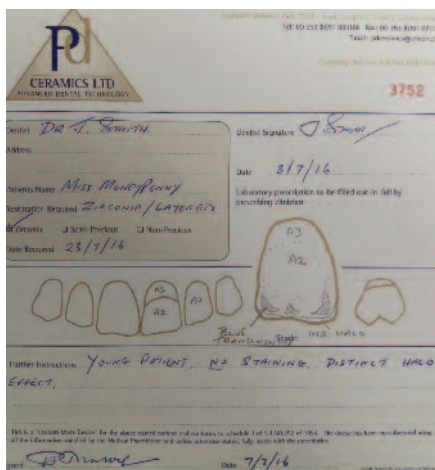


FIGURE 1: A clearly written lab docket with drawing of characterisation illustrated.

### 2. Labelling and identification

Label and identify materials being submitted such as accurate impressions, casts and occlusal registrations.

### 3. Crown margins

Identification of crown margins and retraction of gingivae visually are vital. Check for drags or areas where the wash material has not blended with the putty (Figure 2).

### 4. Alginate impressions

Ensure that these are taken using adhesive and are secure within the tray. Use correctly sized trays and position them on the arch correctly, ensuring equal amounts of impression material all around the arch. The most posterior teeth must not extend beyond the tray (Figures 3 and 4).

### 5. Material

The material to be used should be clearly marked, such as porcelain fused to metal (PFM), zirconia, lithium disilicate (EMAX), gold shell crown, etc.

### 6. Diagnostic wax-up

This is essential for larger cases. It is important to include information on pre-casts or impressions and some idea of future treatment planning (Figure 5).

### 7. Articulation

Cases with accurately mounted casts on an articulator are invaluable. This helps the dentist and technician to assess, plan and fabricate a desired restorative solution, requiring minimal adjustment, while avoiding problems (Figure 6).

### 8. Tooth shade instruction

Clear instructions should be given by means of a photograph, a shade guide and/or a drawing of the characterisation. Spectroshade imaging technology is also widely used (Figures 7 and 8).



FIGURE 2: Defined margins showing retraction of gingivae.



FIGURE 3: Poor quality impression, showing that the wrong size tray was used, absence of adhesive and lower 7s out of the tray.

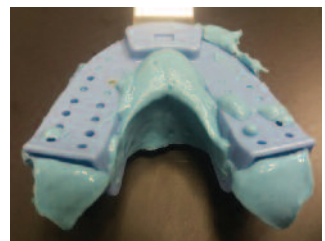


FIGURE 4: Poor quality impression with wrong size tray and absence of adhesive, which causes major occlusal inaccuracies of the opposing model.



Paul Dowling DipDentTech  
Managing Director, PD Ceramics Ltd



FIGURE 5: Diagnostic wax-up is essential for larger cases.



FIGURE 6: Articulation with facebow and bite registration.

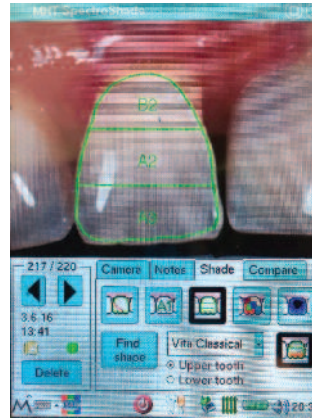


FIGURE 7: Spectroshade image.



FIGURE 8: Spectroshade shade map.

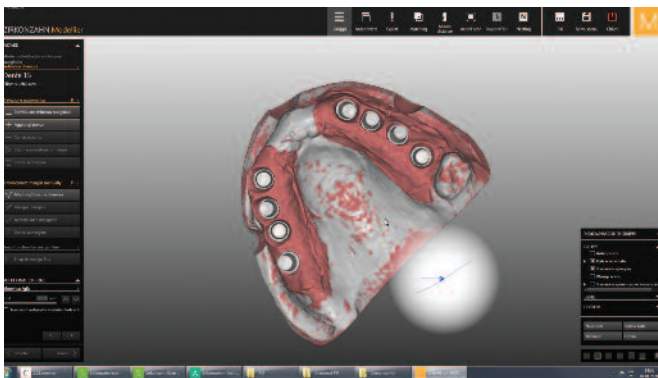


FIGURE 9: Digitised implant model (from conventional impression).



FIGURE 10: Digital photography used for shade tab illustration.

**9. Prosthetic teeth**

Design of removable or partial dentures requires a description of those to be used (mould and shade).

**10. Changes**

If necessary, changes on any case should be given by verbal or written communication as soon as possible.

**11. Disinfection**

All items should be clean, disinfected and clearly marked before packaging. Pack correctly to prevent damage.

**12. Digital impressions or photographs**

If you are sending these by email, please note this on the lab docket also and reference the dentist and patient on the transfer file title. This is especially important when a laboratory is receiving multiple digital impressions daily. We regularly digitise conventional models (Figure 9) for designing purposes and this is also great for communicating with customers on cases.

**13. Return date**

This should be clearly written, and should be before the day that the patient is in for fitting of the restoration.

**14. Record inclusion of essential items**

This helps the laboratory to process your instructions immediately. Some items include:

- rubber base impressions;
- alginate upper/lower;
- bite registration;
- study models;
- bite fork/facebow;

- articulator;
- implant components; and,
- photographs (Figure 10).

**Conclusion**

Proper instruction to your dental technician is achievable through good communication and a strong mutual understanding of the parameters to be adhered to. Both the dentist and the technician have their own challenges to deal with in the translation of information to achieve the best restorative solution possible. With a definitive approach and the exact information to begin with, it is easy to complete a case correctly.

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# Simple technique to evaluate denture border extensions using silicone impression material

## Abstract

**Introduction:** Extension of denture borders beyond the border line can lead to abnormal movement of the denture and therefore possible loss of retention. Soreness or sore spots that appear in the day(s) after insertion may also result from the overextended borders.

**Objectives:** This article presents a simple technique to evaluate denture border extensions using silicone impression material.

**Materials and methods:** One scoop of heavy body silicone is laid on the borders of the denture. The denture is inserted into the mouth and the usual functional movements are performed to investigate any overextensions.

**Conclusion:** This method is simple, time as well as material saving, and does not need extra instruments or devices.

**Keywords:** processed denture; silicone impression material; border extensions.

## Introduction

Insertion of a new denture may be associated with some problems, which can be perceived in the patient's comfort, function, phonetics and aesthetics. The denture should be extended as much as possible, but not to the extent that it causes pressure sore points. If the denture is overextended, extreme soreness can develop. Extension of denture borders beyond the border line may lead to abnormal movement of the denture and therefore loss of retention.<sup>1</sup> Soreness or sore spots that appear in the day(s) after insertion may also result from the overextended borders.<sup>2</sup> Determining the position and extent of overextension is critical and relief should be administered accordingly. Arbitrary adjustments in this area should be avoided to prevent any excessive reduction of the

periphery and breaking of the denture seal.<sup>3</sup> Logan<sup>4</sup> evaluated the processed denture using disclosing wax with the help of a syringe. This article presents a simple technique to evaluate denture border extensions using heavy body silicone impression material.

## Materials and methods

The procedure is performed using the following steps:

1. Use one scoop of heavy body silicone (Zetaplus; Zhermack, Italy). Knead, but do not activate with catalyst, and roll it into a rope of the required length, 3-4mm in diameter (**Figure 1**).

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FIGURE 1: Heavy body silicone.

2. Place it, in one piece, along the periphery of the denture (Figure 2).
3. Insert the denture into the patient's mouth and perform the usual functional movements, in the same way as conventional border moulding.
4. Remove the denture and inspect for any exposed area (Figure 3). Displace the material, reduce the border, re-adapt the material to the site (no need for additional material) and repeat the procedure.

#### Advantages:

- easy handling and manipulation;
- ready-made material (no activator needed);
- long-lasting softness and adaptability makes it easily kneaded and shaped;
- no mixing or setting time;
- every dentist is familiar with these materials;
- available in many dental clinics;
- non-toxic and safe; and,
- materials do not adhere to hands, gloves, custom tray, or clothing.

#### Disadvantages:

- any contact with lips and cheeks should be avoided during insertion and removal of the denture to minimise displacement of the material; and,
- long-time contact inside the patient's mouth may lead the material to sag over the borders; therefore, immediate removal of the denture after finishing the functional movements is recommended.

#### Conclusion

This method is simple, time and material saving, and does not need extra instruments or devices.



FIGURE 2: Adapting the material along the periphery of the denture.



FIGURE 3: Denture after moulding.

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# The non-healing extraction socket: a diagnostic dilemma – case report and discussion

## Abstract

**Statement of the problem:** Delayed healing, or failure of the alveolus to heal post exodontia, is not an uncommon finding in both primary care and hospital practice. Local factors dominate and the majority of cases are the result of clot dissolution, secondary infection, foreign bodies, etc. However, potentially life-threatening, malignant lesions complicating healing can be overlooked and underestimated due to their rare occurrence.

**Purpose of the review:** This article presents a contemporary review of the normal physiological process that directs healing within the extraction socket and a differential diagnosis for delayed healing or failure of healing following extraction, with guidance on appropriate management.

**Method:** A case report of a squamous cell carcinoma presenting in the clinical setting of a non-healing extraction socket, and a discussion of local and systemic factors that may interfere with healing, are presented.

**Conclusion:** The aetiologies of delayed healing and failure of the extraction site to heal are diverse, and the process can be affected by local and systemic factors alike. Given that neoplastic lesions are relatively rare, it is therefore all the more important for GDPs to remain cognisant of the diagnostic red flags that may raise suspicions of a mitotic lesion to ensure that appropriate referral pathways are instituted.

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## Introduction

Although the healing of extraction sockets is generally a rapid and uncomplicated process, delayed healing, overt infection, or failure of recent exodontia sites to heal can occur. Delayed healing is reported to occur in less than 11% of all extractions.<sup>1</sup>

A variety of factors may be implicated and the dental clinician must be aware pre-operatively of both local and systemic influences. The vast majority of cases are the result of innocuous, local factors such as dry socket or infection.<sup>1</sup> However, the potentially life-threatening, malignant lesions complicating this phenomenon can be underestimated.<sup>2-8</sup> Therefore, it is incumbent on dental professionals to familiarise themselves with the normal inflammatory and reparative processes involved in the restitution of mucosal continuity which follow extraction, and the potential pathological lesions that interfere with healing. Failure of an extraction socket to exhibit satisfactory signs of healing in a timely manner (within three to four weeks) warrants urgent referral to an oral and maxillofacial surgeon for investigation.

## Normal healing of the extraction socket

The extraction socket, like any other wound associated with tissue loss, heals by secondary intention.<sup>9</sup> There is a well-defined, orderly sequence of biological events, which restores the continuity of the alveolar mucosa and bone following exodontia.<sup>10</sup> The socket fills with blood, which coagulates to produce a loosely adherent clot. Platelets within the clot retract, causing the gingival tissues to collapse into the clot-filled alveolus. The clot then continues to stabilise by fibrin cross-linking within the first 24 hours of the extraction. This is the rationale behind deferring rinsing for one day post-operatively.<sup>11</sup>

During the next 48 hours the clot is broken down by fibrinolytic activity of the enzyme plasmin.<sup>12</sup>

After approximately five days, ingrowth of fibroblasts from the socket wall occurs and angiogenesis results in the formation of capillaries, fixing the clot to the socket wall with granulation tissue. Fibroplasia (production of fibrous tissue) ensues, with eradication of the fibrin by macrophages and replacement with granulation tissue.<sup>13</sup> Gingival epithelium then proliferates and grows over the intact clot below the surface debris.<sup>14</sup>

Over the next two weeks, a variable amount of osteoid is produced by induced mesenchymal cells, and osteoprogenitor cells in the residual periodontal ligament.<sup>15</sup> This results in the formation of woven bone, which is then remodelled by subsequent osteoblastic and osteoclastic activity, resulting in the formation of mature lamellar bone. Gradually, the cortical bone of the empty socket (the radiographic lamina dura) is replaced and the socket filled by trabecular bone. Healing is complete at approximately three months post extraction. This typically expeditious process is attributed to the abundant vascular supply of the alveolar process and accompanying periosteum, the responsiveness of the gingival epithelium, and the rapid turnover of periodontal connective tissue elements.<sup>16</sup>

## Case report

### Clinical presentation

A 55-year-old female presented to the department of oral and maxillofacial surgery at the Dublin Dental University Hospital, on referral from an oral surgeon, regarding a non-healing socket of three months' duration, following surgical extraction of the lower right third molar. The presenting complaint was of severe pain in the region of the extracted tooth. The medical history

included rheumatoid arthritis, and the patient had a history of oral bisphosphonate use and adalimumab therapy (a tumour necrosis factor (TNF)-inhibiting anti-inflammatory medication).

Clinical examination revealed a tender and enlarged right submandibular lymph node extra-orally and trismus was observed. There was a subjective sensory alteration of the right tongue; however, clinical examination revealed no objective sensory deficit in the third division of the trigeminal nerve. Upon intra-oral examination a non-healing extraction socket in the lower right third molar region was detected with granulation tissue filling a small distinct cavity. Radiographically there was an area of diffuse bone loss, related to the extraction socket of the lower right third molar extending posteriorly. The lesion was non-corticated, with ragged edges, and of ill-defined shape (Figures 1 and 2).

### Differential diagnosis

At presentation, the differential diagnosis included osteomyelitis (the possibility of a rare persistent infection such as actinomycosis was considered given the history of adalimumab therapy),<sup>17,18</sup> medication-related osteonecrosis of the jaw, and intra-oral malignancy.

### Investigations

The non-healing extraction site was explored surgically and soft tissue curetted from the bony socket. This was sent for histopathological examination and fragments of moderately differentiated keratinising squamous cell carcinoma were detected. Imaging, which included positron emission tomography (PET) and computed tomography (CT) scanning, revealed a significant lesion within the right mandible. The tumour was staged as T4N0M0 according to The American Joint Committee on Cancer (AJCC) Tumour-Node-Metastasis (TNM) cancer staging system.<sup>19</sup>

### Management

The cancer was managed in the first instance with surgical resection (hemimandibulectomy, partial glossectomy and neck dissection) supplemented with radiation therapy post-operatively. The reconstructive phase of the surgery involved a vascularised free fibular flap for bony reconstruction.

### Discussion

This case report highlights the need for prompt referral of suspicious lesions, and early detection of potential malignancies. Cancer of the head and neck is a major health problem worldwide, accounting for 6% of all cancers.<sup>20</sup> In Ireland, oral and pharyngeal cancer represents approximately 4% of all cancer registrations and 1.5% of all cancer deaths.<sup>21</sup> Alveolar ridge carcinomas, although poorly studied, are purported to comprise 9% of all oral squamous cell carcinomas (OSCCs).<sup>22</sup>

OSCC can present initially as an asymptomatic red or red and white (erythroleukoplakic) patch or plaque. Untreated, it then progresses to an indurated (hard) ulcer or lump with irregular margins.<sup>23</sup> A much less common manifestation of oral cancer is delayed healing of the extraction socket, as presented in this case report. Accordingly, malignant tumours are associated with a variety of clinical signs and symptoms including pain, swelling, mobile teeth, and bleeding.<sup>23</sup> A similar clinical picture is also apparent when inflammatory dental pathology is encountered.<sup>24</sup>





FIGURE 1: Orthopantomogram radiograph showing bony defect at site of lower right third molar extraction socket.



FIGURE 2: Intra-oral peri-apical radiograph of lower right third molar region showing ragged bony margins and aberration from the normal radiographic appearance of the healing extraction socket.

This can confound the diagnosis of an early invasive tumour as they have features that mimic periodontal disease and alveolar abscesses.<sup>5</sup> In cases where OSCC presents post exodontia, it is likely that the presence of a tumour is overlooked and misdiagnosed due to similarity between this condition and common dental pathology. It has been reported, worryingly, that tooth extraction at the site of an OSCC may increase the risk of lymphatic metastasis, thus worsening the prognosis.<sup>3,25,26</sup> However, other authors argue against this supposition.<sup>25,27</sup>

Malignant lesions arising from the oral mucosa, the intraosseous tissues, and the maxillary sinus/paranasal sinuses/nasal cavity may all interfere with the orderly sequence of wound healing following exodontia. Indeed, failure of healing in an extraction socket may be the initial presenting feature of some of the more insidious malignancies, such as antral carcinoma or metastases from occult primary tumours.<sup>28,29</sup>

A neoplastic lesion, particularly an aggressive one, will result in tissue necrosis.<sup>9</sup> This, and the presence of the tumour itself, will serve as a barrier to the ingrowth of reparative cells, complicating the healing process. Additionally, in a similar manner to foreign material in the wound, necrotic tissue serves as a protected niche for bacteria. Malignant tumours may also cause ischaemia if complicating the site of an extraction, again interfering with the healing process.<sup>9</sup>

### Other factors affecting healing

Delayed healing of an extraction socket should always carry an index of suspicion for the treating clinician. However, the occurrence of a malignant lesion complicating healing is rare and the focus of this discussion now turns to the differential diagnosis when presented with failure of the extraction site to adequately heal. The role of the general practitioner in the management of delayed healing following exodontia is the exclusion of common, innocuous causes. Once these common causes of failed healing have been accounted for and excluded, referral to a specialist centre for investigation is advised.

Delayed healing or failure of an extraction socket to heal satisfactorily can be the result of either local or systemic factors. These factors may impair the quality of both inflammation and repair within the tissues (Table 1).

#### Local factors

The extraction socket can be influenced by local factors in a similar manner to

other wounds in the body,<sup>9</sup> including infection, mechanical factors, foreign bodies, and the size and nature of the wound. The circulatory status, and vascular supply to the anatomical site, also have a profound effect on wound healing.<sup>30</sup>

Table 1: Considerations in non-healing extraction sockets.

Local	Systemic
Alveolar osteitis (dry socket)	Malnutrition
Residual cysts	Drugs, e.g., steroid hormones
Periodontal infection	Age
Infected granulation tissue /foreign body	Immunosuppression
Malignancy: ■ oral mucosal; ■ intraosseous; ■ maxillary sinus/nasal cavity; and, ■ secondary metastases.	Blood dyscrasia
Osteomyelitis	Chronic diseases (renal disease, liver disease)
Osteoradionecrosis (when the radiation field encompasses the alveolus)	Endocrinopathies, e.g., diabetes mellitus
Osteochemonecrosis (including medication-related osteonecrosis of the jaws)	Smoking
Uncompressed, fractured cortical plates	Salivary hypofunction
Alveolar bone sequestra	
Oro-antral communications and fistulae	
Infective maxillary sinus disease (bacterial and fungal)	

### *Alveolar osteitis (dry socket)*

Dry socket is the most common postoperative complication after tooth extraction, with an onset at two to four days after surgery.<sup>31,32</sup> It is defined by Blum as “postoperative pain inside and around the extraction site, which increases in severity between the first and third day after the extraction, usually caused by a partially or totally disintegrated blood clot within the socket”.<sup>33</sup> The reported incidence of this condition ranges from 1-4% of extractions, increasing to 45% for mandibular third molars.<sup>33-36</sup> In alveolar osteitis, healing is delayed because tissue must proliferate from the circumferential gingival mucosa, which takes longer than the normal organisation of a blood clot.<sup>33</sup>

### *Foreign bodies and secondary infection*

Foreign material is anything the host immune response views as ‘non-self’, including bacterial by-products, suture material, socket dressings, etc. This material acts as a haven for bacteria by sheltering them from host defences and thus promoting infection.<sup>37</sup> Foreign material is also antigenic and can trigger a chronic inflammatory reaction that retards healing. The clinical relevance of these points extends from selection of suture material to arguments against the prophylactic use of socket dressing.<sup>32,33</sup> Secondary infection will perpetuate the destructive elements of the inflammatory process. This, coupled with the production of bacterial enzymes, leads to cell death and tissue necrosis, delaying normal healing.<sup>37</sup> In a prospective clinical trial of 311 uncomplicated, routine extractions the incidence of delayed healing due to secondary infection was reported at 1.6%.<sup>1</sup>

### *Residual cyst*

A residual radicular cyst arises from epithelial remnants (the rests of Malassez) stimulated to proliferate by an inflammatory process resulting from pulpal necrosis of a non-vital tooth that has since been extracted.<sup>38</sup> The natural history begins with a necrotic tooth, which remains *in situ* long enough such that chronic peri-apical pathology (for example a radicular cyst) becomes established. Eventually the tooth is extracted without consideration of the peri-apical pathology, persisting within the alveolus as a residual dental cyst.<sup>39</sup> The residual cyst is often an incidental radiographic finding, but sometimes it can become painful in case of secondary infection, or the pathological entity may present as delayed healing of an extraction socket.<sup>40</sup> This illustrates the possible sequelae when judicious removal of peri-apical pathology and radiographic follow-up are not undertaken following the extraction of a necrotic tooth.

### *Osteomyelitis and osteonecrosis*

Osteomyelitis is described as an inflammation of bone and bone marrow. It may develop in the jaws following a chronic odontogenic infection or for a variety of other reasons,<sup>41</sup> and can be acute, sub-acute or chronic, each resulting in a totally different clinical picture. Osteomyelitis forms part of the differential diagnosis when considering delayed/failure of healing in an extraction socket.<sup>42</sup> Osteonecrosis manifests as lesions of necrotic and exposed bone in the oral cavity that persist for at least eight weeks.<sup>42,43</sup> It may be associated with a number of different predisposing conditions, most commonly radiation therapy to the head and neck and medications such as bisphosphonates, denosumab and others.<sup>42,43</sup> Osteonecrosis can significantly impair the healing process following exodontia, and may require surgical intervention in severe cases.

### *Oro-antral fistula*

An oro-antral fistula (OAF) is a pathological communication between the oral cavity and the maxillary sinus.<sup>44</sup> It arises most often after extraction of posterior maxillary teeth due to the intimate anatomical relationship between the apices of the molar and premolar teeth and the maxillary antral floor.<sup>45</sup>

In contrast to the oro-antral communication (OAC), OAF is categorised by the presence of an epithelial tract arising from the oral mucosa and/or from the antral sinus mucosa that, if not removed, can inhibit spontaneous healing.<sup>38</sup> Repairing this defect is important to avoid food and saliva contamination that may establish and perpetuate bacterial infection, impaired healing, and chronic sinusitis.<sup>46</sup>

### **Systemic factors**

#### *Nutrition*

The patient’s nutritional state is a potent factor in determining the outcome of wound healing.<sup>47</sup> The undernourished patient is immunocompromised, which predisposes to wound infection that delays healing.<sup>48</sup> Additionally, deficient protein intake may inhibit collagen formation and delay healing.<sup>49</sup> Vitamins A and C, and zinc, are also important micronutrients implicated in wound healing, as well as haematinics such as iron, folate, and vitamin B12.<sup>47,48,50,51</sup>

#### *Steroid hormones*

Glucocorticoid hormones (such as prednisolone) inhibit collagen synthesis and inflammation, and impair immunity. Used therapeutically they can therefore lead to delayed healing.<sup>52</sup>

#### *Age*

Increasing age is often stated to be a factor affecting the efficacy of wound healing.<sup>53</sup> It is true that wounds tend to heal more rapidly in the young than in the elderly, but it is difficult to be certain that it is age *per se* that is exerting an effect, or whether delayed healing in the aged may be due to local vascular factors such as poor arterial perfusion.<sup>54</sup>

#### *Metabolic status*

The presence of a metabolic disease, such as diabetes mellitus, can affect wound healing.<sup>55</sup> Diabetes mellitus, especially if glycaemic control is poor, has an inhibitory effect on the healing process.<sup>56,57</sup>

There is an impairment of the neutrophil response to injury and infection. In addition, diabetics may suffer from poor vascular perfusion.<sup>58</sup> Other intra-oral effects of diabetes mellitus have been discussed elsewhere,<sup>59</sup> but the authors again emphasise the important role that the dentist has to play in its diagnosis. Delayed or impaired wound healing in the oral cavity should alert the general dental practitioner (GDP) to the possibility of an insidious, underlying systemic process such as diabetes mellitus.<sup>58</sup>

### **Conclusion**

There will be cases where, despite adequate surgical care, the extraction site will not heal. Delayed or non-healing extraction sites always require investigation.

The majority are the result of local factors such as alveolar osteitis and infection. However, the clinician must be aware that in certain circumstances a potentially life-threatening disorder may be driving this clinical presentation, as highlighted in this case report. Considering the latter scenario is a relatively rare

encounter in general practice, it is therefore of the utmost importance that GDPs remain cognisant of the signs and symptoms suggestive of invasive malignancy of the oral cavity and paranasal sinuses. Prompt referral and early diagnosis, once all other local and systemic factors impairing healing have been excluded, will correlate with a better outcome for the patient.

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And BioHorizons isn't just about getting dentist to use their products. I've found that they are really committed to education. I was recently fortunate enough to be invited to one of their international training programmes and was truly blown away on all fronts. The training was to a high level and well-tailored to all delegates. BioHorizons' staff attending were approachable, generous and open to feedback. All in all, it was really humbling to see a company with a focus truly on engaging with – and supporting – their customers.

Indeed, the longer I have spent as a BioHorizons partner the more staff I have met and the more of the 'family' approach I have seen in action. Whether it is the reps, the marketing team, or research and development, they are all totally approachable, generous with their time and assistance, and nothing is ever too much trouble. I think this aspect is a real credit to the BioHorizons brand and they have done incredibly well to engender this.

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Since partnering with BioHorizons, I can honestly say I have never been more confident about the implant dentistry our practice is providing, or the science, innovation and support behind the implants we place. We are proud to display the BioHorizons brand on our website, as the only implant system we need.



### Dr Marcos White

Marcos White is the principal dentist at The Courtyard, an award-winning practice in Huddersfield. Marcos enjoys caring for his loyal patient base and having the confidence to provide solutions to whatever restorative issue he is presented with.

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## The microbiologic profile associated with peri-implantitis in humans: a systematic review

Rakic, M., Grusovin, M.G., Canullo, L.

### Purpose

To qualitatively investigate the microbiologic profile in peri-implantitis by systematically reviewing the published literature on peri-implant infection.

### Materials and methods

Searches of the US National Institutes of Health's free digital archives of the biomedical and life sciences journal literature (PubMed), and the Cochrane Library of the Cochrane Collaboration (CENTRAL), as well as a hand search of other literature, were conducted to identify articles potentially relevant for the review. Randomised clinical trials, prospective cohort studies, longitudinal studies, case-control studies, and cross-sectional studies in humans reporting microbiologic findings in patients with diagnosed peri-implantitis were considered eligible for this review. Screening, data extraction, and quality assessment were conducted independently and in duplicate.

### Results

Twenty-one articles were eligible for inclusion in this review. Early studies focused on the identification of target periopathogens, whereas more recent studies used advanced molecular techniques for comprehensive overview of the peri-implantitis-associated microbiome. In summary, the microbiologic profile in peri-implantitis is: (1) complex and variable; (2) consists of gram-negative anaerobic periopathogens and opportunistic microorganisms in almost the same ratio; (3) is frequently associated with the Epstein-Barr virus and nonsaccharolytic anaerobic gram-positive rods; (4) is not so strictly associated with *Staphylococcus aureus*; and, (5) is different from that of periodontitis. A meta-analysis could not be performed because of the heterogeneity of the reviewed studies.

### Conclusion

Although a comparison of the published results was limited because of the inhomogeneity of the studies, it is clear that the microbiologic profile of peri-implantitis consists of aggressive and resistant microorganisms and is distinct from that of periodontitis. It seems that the quantitative characteristics of the microflora cohabitants represent the key determinant of disease, rather than the qualitative composition, which is very similar in healthy and peri-implantitis states.

*International Journal of Oral Maxillofacial Implants* 2016; 31 (2): 359-368.

## The changing tobacco landscape

Couch, E.T., Chaffee, B.W., Gansky, S.A., Walsh, M.M.

### Background

Tobacco products in the United States and the patterns of tobacco use are changing. Although cigarette smoking prevalence has declined, dental professionals are likely to encounter substantial numbers of patients who have tried, and are continuing to use, new and alternative tobacco products, including cigars, water pipes (hookahs), and electronic cigarettes, as well as conventional and new smokeless tobacco products.

### Methods

The authors reviewed conventional and new tobacco products in the United States, their adverse oral and systemic health effects, and their prevalence of use.

### Results

Tobacco products other than cigarettes account for a substantial portion of tobacco use. For this reason, tobacco use prevention and cessation counselling provided by dental healthcare professionals must address all tobacco products, including cigarettes, cigars, water pipes and electronic cigarettes, as well as conventional and new smokeless tobacco products. Cigarette smoking and smokeless tobacco use are associated with immediate and long-term adverse health effects, including nicotine addiction, oral and systemic disease, and death. Novel products may attract new tobacco users, potentially leading to addiction that results in enduring tobacco product use and associated adverse health effects.

### Conclusions

This critical review of conventional, new, and emerging tobacco products presents information that dental professionals can use in providing tobacco-related counselling to patients who use, or who are at risk of using, tobacco products.

### Practical implications

It is essential that dental professionals are knowledgeable about tobacco products and are able to answer patients' questions and provide them with evidence-based tobacco-related counselling. This information may prevent patients from initiating use or help reduce or cease use, to avoid immediate and long-term adverse health effects, including nicotine addiction, oral and systemic disease, and death.

*The Journal of the American Dental Association* 2016; 147 (7): 561-569.

## Justification of full width panoramic radiography in oral surgery

Bell, G.W., Donaldson, K.J., Walton, R.L., Morrison, J.L.

### Objective

To discover how much of a full width panoramic radiograph is required for diagnosis and treatment planning in oral surgery.

### Study design

In this retrospective study, the panoramic radiograph was divided into five equal vertical segments and assessed as to the number of segments required for diagnosis and treatment planning in relation to their initial referral. Incidental findings outside the areas required were investigated as to whether or not they influenced treatment planning.

### Results

From images of 823 patients, over half (56.5%) required only one segment of the image for diagnostic purposes in relation to their referral. The posterior mandible and temporomandibular joint areas were required least (5.3%), followed by the midline segment (10.0%). The segments required most often were the molar and premolar regions bilaterally (84.7%). In 15.8%, incidental findings were observed outside of the segments requested, but these only influenced treatment planning in 2.9% of cases.

**Conclusion**

In this study of patients attending an oral surgery service, a full width panoramic tomograph was not required in most instances. Referrals for segmental panoramic imaging should be regarded as regular rather than unusual practice.

*Oral Surgery, June 18, 2016 – ahead of print.*

**An insight into current concepts and techniques in resin bonding to high strength ceramics**

*Luthra, R., Kaur, P.*

**Background**

Reliable bonding between high-strength ceramics and resin composite cement is difficult to achieve because of their chemical inertness and lack of silica content. The aim of this review was to assess the current literature describing methods for resin bonding to ceramics with high flexural strength, such as glass-infiltrated alumina and zirconia, densely sintered alumina and yttria-partially stabilised tetragonal zirconia polycrystalline ceramic (Y-TZP), with respect to bond strength and bond durability.

**Methods**

Suitable peer-reviewed publications in the English language were identified through hand searches and searches performed on PubMed and Google Search. The keywords or phrases used were ‘resin-ceramic bond’, ‘silane coupling agents’, ‘air particle abrasion’, ‘zirconia ceramic’ and ‘resin composite cements’. Studies from January 1989 to June 2015 were included.

**Results**

The literature demonstrated that there are multiple techniques available for surface treatments, but bond strength testing under different investigations has produced conflicting results.

**Conclusions**

Within the scope of this review, there is no evidence to support a universal technique of ceramic surface treatment for adhesive cementation. A combination of chemical and mechanical treatments might be the recommended solution. The hydrolytic stability of the resin ceramic bond should be enhanced.

*Australian Dental Journal 2016; 61 (2): 163-173.*

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**QUIZ ANSWERS**

Questions on page 189

- The WHO recommended daily sugar intake for adults is 25g (approximately six teaspoons).
- |                              |   |
|------------------------------|---|
| Gum Vites                    | 3g per gum                                |
| Nurofen for Children         | 0g  |
| Calpol                       | 2.2g per 5ml.                             |
|                              | Sugar-free version available              |
| Amoxil Paediatric Suspension | 2.7g per 5ml.                             |
|                              | Sugar-free version available              |
| Robitussin cough syrup       | 0g  |
| Viscolex Syrup               | 3g per 5ml                                |
| Lemsip Cold and Flu          | 5g per sachet                             |
| Fortisip                     | 13g per serving                           |
| Fortijuice                   | 12g sucrose                               |
|                              | (plus unstated quantity of glucose syrup) |
| Ensure Plus                  | 23g per serving                           |
- Patients with anorexia nervosa
  - Frail, elderly patients in full-time care in nursing homes or hospital. These patients are also likely to have a drug-induced xerostomia, increasing the chances of rampant caries.



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Very busy Limerick City practice looking for an associate dentist four days per week. Support will be given to sit MFD examinations, including study leave and learning support. Please email Jennifer at [jennifer.bowedental@gmail.com](mailto:jennifer.bowedental@gmail.com).

Part-time permanent associate position available to cover a maternity leave position and to be a permanent part of a rapidly growing practice in the north east. Our website – [www.frielandmccgahon.ie](http://www.frielandmccgahon.ie) – gives an insight into our award-winning practice. Email [frielandmccgahon@gmail.com](mailto:frielandmccgahon@gmail.com).

Experienced associate required for busy, established book in wholly private practice 30 minutes from Dublin. Two days per week. In-house periodontist and endodontist. Superb staff and equipment. Excellent terms assured. Please send CV to [dentistmeath@gmail.com](mailto:dentistmeath@gmail.com).

Dublin north. Dynamic, flexible, experienced associate required. Immediate start. Full week. Self-employed status confirmed. State-of-the-art, busy practice. Top-class equipment. Computerised. Knowledgeable, supportive staff. Great long-term remuneration. Email with CV and personal profile to [niall@innovativedental.com](mailto:niall@innovativedental.com).

Full-time associate required for busy, modern, award-winning practice in Dublin city centre. Minimum two years' experience. Fully computerised practice with OPG, CEREC and microscope. Private practice, good communication skills essential. Excellent support staff, full-time hygienists and visiting oral surgeon. Email [hello@docklandsdental.ie](mailto:hello@docklandsdental.ie).

Full-time associate position (incl. Saturdays) in well-established, modern, computerised practice in New Ross. Full-time hygiene support and on-site acrylic dental laboratory available. Experience preferred but not essential as great staff support available. Email [dillondental2@gmail.com](mailto:dillondental2@gmail.com).

Associate required for busy, state-of-the-art practice in Co. Kerry. Full- or part-time position available. Please apply to [dentalapplicationkerry@outlook.com](mailto:dentalapplicationkerry@outlook.com).

Galway City. Associate wanted. Must have advanced restorative dentistry skills and minimum of three years' practice experience. Seeking motivated, enthusiastic and outgoing individual with great chair-side people skills. Part-time and full-time options. Email [galwayassociate1@gmail.com](mailto:galwayassociate1@gmail.com) in confidence today.

Excellent opportunity for an associate to work in a modern practice in the Midlands. Visiting oral surgeon and orthodontist with great mentoring opportunity. May suit new graduate. Reply to [midlandsdentaljob@gmail.com](mailto:midlandsdentaljob@gmail.com).

Full-time dental associate required for dental practice located in Ballinasloe, Co. Galway. We work Monday to Saturday and Saturday is on a roster system. In business since 1996 and practice has three surgeries. New graduates welcome to apply. Email [rothwellauct@eircom.net](mailto:rothwellauct@eircom.net).

Associate required for well-established, modern, south Dublin practice. A motivated applicant with a good patient manner and commitment to high standards will reflect the ethos of the practice. Apply with CV and references to [southdublindentists@gmail.com](mailto:southdublindentists@gmail.com). Confidentiality assured.

Dental associate required for busy, modern practice in Kinnegad, Westmeath, 45 minutes from Dublin. Three-day week initially with potential for growth. General practice experience essential and IDC registration. Send CV to [westmeathdental@gmail.com](mailto:westmeathdental@gmail.com).

Dental associate to see medical card and private patients part-time in busy, modern, three-surgery dental practice in Dublin 13. Digital OPG. Fantastic surgery and dental team including treatment co-ordinator. Please email your CV to [Suken.Shah@smartdentalcare.co.uk](mailto:Suken.Shah@smartdentalcare.co.uk).

Dynamic, flexible, experienced associate required for September start. This is a full-time role with a full book with great earning potential. Busy practice with knowledgeable staff. Great remuneration for the right candidate. Email [laura.cowman@dentalcareireland.ie](mailto:laura.cowman@dentalcareireland.ie).

Dental associate required in Castlebar, Co. Mayo for full-time position, very busy practice with excellent staff. Full book and great earning potential. Both experienced and newly qualified dentists may be considered. Email [laura.cowman@dentalcareireland.ie](mailto:laura.cowman@dentalcareireland.ie).

Part-time dental associate position for modern practice 20 minutes from Dublin city centre. Excellent equipment and experienced staff. For a flexible candidate there may be the possibility to move full-time in autumn. Email [laura.cowman@dentalcareireland.ie](mailto:laura.cowman@dentalcareireland.ie).

Full-time associate position in SW Dublin. Busy, modern, digital and computerised group practice. Experienced, motivated, efficient individual looking for long-term role. Email [tullyhouse@gmail.com](mailto:tullyhouse@gmail.com).

Experienced, enthusiastic associate dentist required to work with a team in three practices with Cerec, CBCT, implants, orthodontics and visiting periodontist. Opportunity to develop skills and career. Full-time position. Email [dentistrequired249@gmail.com](mailto:dentistrequired249@gmail.com).

Advertisements will only be accepted in writing via fax (01- 295 0092), letter or email ([fionnuala@irishdentalassoc.ie](mailto:fionnuala@irishdentalassoc.ie)). Non-members must pre-pay for advertisements, which must arrive no later than **Friday, September 9, 2016**, by cheque made payable to the Irish Dental Association. Classified ads placed in the *Journal* are also published on our website [www.dentist.ie](http://www.dentist.ie) for 12 weeks.

Advert size	Members	Non-members
up to 25 words	€75	€150
26 to 40 words	€90	€180

The maximum number of words for classified ads is 40.

If the advert exceeds 40 words, then please contact:

Think Media, The Malthouse, 537 North Circular Road, Dublin 1.  
Tel: 01-856 1166 Fax: 01-856 1169 Email: [paul@thinkmedia.ie](mailto:paul@thinkmedia.ie)

Please note that all classified adverts MUST come under one of the following headings:

- ▶ Positions Wanted
- ▶ Practices for Sale/To Let
- ▶ Equipment for Sale/To Let
- ▶ Positions Vacant
- ▶ Practices Wanted

Classified adverts must not be of a commercial nature. Commercial adverts can be arranged by contacting Paul O'Grady at Think Media.

Experienced associate required for Saturdays for busy established book in wholly private practice 30 minutes from Dublin. In-house periodontist and endodontist. Superb staff and equipment. Very generous terms assured. Please send CV to dentistmeath@gmail.com.

Associate with five years' experience needed immediately for busy, fully private practice in Dublin city centre, initially two days per week. A masters in restorative and orthodontic experience a huge advantage. Email CV and references to drpeterdwyer@gmail.com.

Associate sought for busy, established Cork-based dental practice. Minimum of three years' experience required with future prospects for suitable candidate. Please forward CV, references and any other supporting documents to dentaljobcork1@gmail.com.

Part-time associate required, Cork suburb. Email toothdr10@gmail.com.

Part-time associate required for modern city centre practice. CVs to info@quaydental.ie.

Athlone practice requires part-time associate three days including some Saturdays. Well-established, friendly practice, rotary endo, digital x-rays. Experience preferable. Email campbelldental@yahoo.ie.

Experienced dentist required two to three days per week at Harcourt Health Dental Practice. Excellent communication skills and friendly manner. Please email CV to marycreddy@gmail.com.

Graduated in June? If you are driven by a desire to provide excellent quality dentistry, in a modern, well-equipped environment, you are right for Smiles Dental! Smiles Dental in Drogheda can offer the ideal opportunity. Email joanne.bonfield@smiles.co.uk.

Experienced, friendly, enthusiastic dentist required in Clare. Very attractive long-term position available. Please reply to claredentists@gmail.com.

We are looking for a dentist to join our practice in Dublin 7. Must be fully qualified with two years of experience. Our customers are mix of Irish, Polish and internationals, and the dentist must speak English and Polish. Email: ewa@canduco.com.

Dundalk. Exciting opportunity for an enthusiastic general dentist to join our busy, modern, well-equipped, state-of-the-art Smiles practice in Dundalk on a full-time basis. Candidates must have general experience and be IDC registered. Email joanne.bonfield@smiles.co.uk.

Dublin. Exciting opportunity for an enthusiastic general dentist to join our modern, state-of-the-art Smiles Blanchardstown practice in Dublin. Position offered on a full-time basis with existing list. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Experienced, conscientious dentist required for maternity cover in modern Galway practice. Days flexible. Please email queries and CV to: dentalgalway@gmail.com.

Dublin 16 – exciting opportunity for an enthusiastic general dentist to join our team in our Rathfarnham clinic. Candidates must have general experience and be IDC registered. Email: management.kbmdental@gmail.com.

We are a busy practice requiring a full-time experienced dentist to replace an associate relocating after 10 years. This job offers extremely generous remuneration reflective of the applicant's motivation and skill set. Applicants should email: midlandsdental1@gmail.com.

Experienced dentist required for busy practice. Fridays, alternate Saturdays and one late evening (4.00pm-8.00pm). Availability to cover holidays ideal. Special interest in oral surgery/implants/endodontics preferred. Contact dentistmidlands@gmail.com.

Experienced dentist required part-time initially. Private, medical card and PRSI. Please send CV to stillorgandentalcare@gmail.com. Immediate start.

Very busy practice! Dentist needed ASAP for second surgery. Can be flexible initially but full-time eventually needed. Modern, digital practice with 5\* reviews. Visit our website and send CV if interested. Training available if limited experience. Email kingscourt dentalpractice@gmail.com.

Busy, modern Donegal town practice with special interest in orthodontics seeks experienced dentist to assist with general work. Experience in implantology preferred. This practice has an excellent reputation within the county. Staff are welcoming, professional and extremely hardworking. Email siomurr@hotmail.com.

Limerick. Dentist required for part-time role in modern, busy clinic. Approximately 20 hours per week. Experience required. CVs to limerickdentaljob@gmail.com.

Dentist wanted part-time to work in three-surgery practice in Dublin SW. Fully computerised, OPG Lat Ceph. Email adasethsmith@gmail.com.

Part-time maternity cover dentist required in Blackrock, Co Dublin. Start September. Busy practice. Fully private, Cerec, OPG, excellent working conditions. Please send CV to drgarymcmahon@gmail.com.

Wexford – exciting opportunity for an enthusiastic general dentist to join our modern, well-equipped, well-established Smiles dental practice in Wexford to take over an existing patient list three to five days per week. Candidates must be IDC registered. Email joanne.bonfield@smiles.co.uk.

Experienced locum dentist required to cover four months' maternity leave, beginning August 25. Four weekdays in Dublin 7. May result in part-time associate position. Email oloughlindental@eircom.net.

Co.Wexford – exciting opportunity for an enthusiastic general dentist to join our modern, busy, well-equipped, well-established Smiles dental practice in Enniscorthy. Position offers five days per week. Candidates must have IDC registration. Email joanne.bonfield@smiles.co.uk.

Locum dentist required for holiday cover Monday to Friday, September 5-9 inclusive, in busy west Dublin practice. Please reply to dentalassociaterequired@gmail.com.

Busy practice requires a full/part-time experienced dentist to replace an associate relocating after 10 years. This job offers extremely generous remuneration reflective of the applicant's motivation and skill set. Applicants should email westerndental10@gmail.com.

Orthodontist, Dublin – Smiles Dental is looking for an experienced, motivated, specialist-registered orthodontist to join our well-established, modern, state-of-the-art practices across Dublin. Five days per week available. Email joanne.bonfield@smiles.co.uk.

Part-time orthodontist required in south Dublin for a busy progressive practice. Please send CV in strictest confidence to Southdublinorthodontist@gmail.com.

Orthodontist. Surgery available part-time for orthodontist in Ballincollig, Co. Cork, to replace departing colleague. Fully computerised, digital x-rays and OPG. Email info@ballincolligdental.ie.

Specialist orthodontist (full/part-time) needed for general and orthodontic practice in south east. Long-term or short-term commitment options available. State-of-the-art practice. Potential to earn 250k annual income. To apply, please email orthojobireland@gmail.com.

Specialist endodontist wanted for busy three-surgery general practice in Navan. Multiple practices in surrounding area. Currently have hygienist, periodontist and two general practitioners. Fortnightly sessions with a view to weekly. Saturdays also an option. Email gh@bridgeviewdental.ie.

Endodontist – Smiles Dental is looking for an experienced, motivated, specialist-registered endodontist to join our modern, state-of-the-art practices in Enniscorthy and Wexford. Email joanne.bonfield@smiles.co.uk.

Shields dental and implant centre in Limerick wishes for an experienced dental surgeon to join their team. We seek a candidate with a special interest or specialist qualification to add to our team. Email info@shieldsdentalcentre.ie.

Part-time dental nurse position available. Qualified dental nurse required for busy, modern, high-tech practice. We are based in the IFSC. Applicants must be friendly, flexible and work well in a team. Email hello@docklandsdental.ie.

A southside practice is seeking a friendly, bubbly, full-time dental nurse to join a great team. Start date June 6. Dental practice is located in Churchtown. Experience working with EXACT dental software is a benefit. Forward CVs to tfbc16@gmail.com.

Qualified, experienced dental nurse required for a busy private dental practice in Cork to work part-time. Must have excellent communication skills, good chair-side manner, IT skills. Experience in implantation is an advantage but not essential. Email info@hdcie.ie.

Enthusiastic, qualified dental nurse required for busy, computerised practice on a part-time basis. Flexibility, computer skills and reception experience essential. Email info@malahidedentalcare.ie.

Full-time dental nurse position available for award-winning and rapidly expanding surgery in Dundalk. Our website – www.frielandmcgahon.ie – gives an insight into our friendly team and stylish practice. If interested, send your CV to frielandmcgahon@gmail.com.

Experienced, qualified dental nurse-receptionist required for modern practice. Must have excellent communication and IT skills, and be caring and enthusiastic. SOE knowledge advantageous. Part-time including Saturday mornings. Email: niamh@drumcondravillagedental.ie.

Part-time dental nurse position available in a busy practice in Bishopstown, Cork. Must be flexible, motivated, qualified person with minimum of one year's work experience. Send CVs to info@hdcie.ie.

Exciting roll as treatment co-ordinator required for a newly refurbished, well-established specialist dental practice in North Dublin. Must have dental nursing experience. Send CVs to mags@ncdental.ie.

Practice manager required for a well-established, newly refurbished specialist dental practice in North Dublin. Excellent opportunity for the right applicant. Must have dental nursing experience. Send CVs to mags@ncdental.ie.

Qualified, experienced dental nurse for full-time position at a busy dental practice in Killaloe, Co. Clare. Must have excellent communication skills, good chair-side manner, IT skills. Please apply with a CV by email to killalloedental@gmail.com.

Exciting opportunity for a highly motivated nurse to join a forward-thinking, professional team. We are a busy, modern, computerised practice in Meath (approximately 35 minutes north of Dublin). Position four to five days per week, starting August 22. Forward CVs to meathdentists@gmail.com.

Qualified dental nurse required to join team in busy expanding dental practice on part-time basis. Please send CV to westdublindental@gmail.com.

Qualified DSA for full-time position at Phoenix Dental. Modern, friendly practice. Reception and chair side. Please apply with a CV by email to hello@phoenixdental.ie.

Hygienist required for a very modern busy practice in Carlow. Two days per week, preferably Monday and Tuesday. Applicant must be very patient focused. Email montgomeryhousedc@gmail.com.

Full/part-time hygienist required to replace departing colleague at busy, multi-award-winning practice in Dublin city centre. Candidates must have experience of private practice, and be able to demonstrate a commitment to postgraduate education. Email helen@portobellodental.com.

We're looking for an enthusiastic, motivated hygienist to join our bright, modern practice in Greystones, Co. Wicklow. Hours/days negotiable and include Saturdays. Great opportunity. Please email your CV to lsweeney114@gmail.com or call 085-128 0859 for more information.

Hygienist required for a lovely modern practice in Waterford. Initially two days per week. Hours and days negotiable. The clinic is busy, has a fantastic reputation and is well equipped. Please email CV to cusackdental@gmail.com.

Experienced dental hygienist required for specialist dental practice in Naas, Co. Kildare. Two days per week on Mondays and Wednesdays. Please email info@naasdental.ie.

Busy dental practice established for over 30 years requires dental hygienist for one or two days a week. North side of Dublin. Email CV to dentalcabra@gmail.com.

Dental hygienist required one to two days per week in a busy, modern, fully computerised practice in Co. Mayo. Days are negotiable. Please apply with CV to info@errisdental.ie.

Dental hygienist required in D14, busy, modern, practice four to five days/week. Good technical skills, motivational personality, interest in CDE and a caring manner to maintain our long-term patients. Experience preferable but not essential. Replies and CV to dentalhygienistdublin14@gmail.com.

Part-time hygienist required to replace departing colleague in a rapidly expanding practice in Dundalk. Our website – www.frielandmcgahon.ie – gives an insight into our award-winning dental practice and team. If interested, email us at frielandmcgahon@gmail.com.

Hygienist required in award-winning dental practice in Carlow town – two to three days weekly including Saturdays – established book – good support provided. Please email CV to info@pembrokedental.ie or ring 087-266 6524.

Hygienist required one to two days per week in a busy west Limerick practice. Good technical skills, motivational personality, interested in CDE and maintaining our long-term patients. Experience preferable but not essential. Replies and CV to mullanejpdental@gmail.com.

Hygienist required for maternity leave, one day per week. Starting early September. Please reply by email, including CV and/or references. Email info@kenheritage.ie.

Hygienist needed to replace departing colleague in busy modern Athlone dental practice. Two to three Saturdays per month. Experience preferred. Email CV and references to dentalvacancy@hotmail.com.

Hygienist required one to two days/week in Birr, Co. Offaly. Days are negotiable but will include some Saturdays. Replies with CV and reference please. Email info@birrdentalcare.ie.

Hygienist required in Kildare area. Initially one day per week. The clinic is busy, modern and established 15 years. Applicant must be motivated, efficient and have good communication skills. Emails to kildaredentist2016@gmail.com please.

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Practice with premises for sale Dublin 9. Long-established, busy, single-handed, three fully-equipped ground floor modern surgeries, OPG, office, waiting room. Good location, potential for expansion. Dentist retiring. No medical card. Overhead accommodation. Email northdublinpractice@gmail.com.

Co. Donegal. Fully private, busy, high-profile location. Good footfall. Excellently equipped, digitalised, computerised, OPG. Great staff. Principal retiring from modern practice. Ample room to expand services and hours. Priced for immediate sale. Tel: 086-807 5273, or Email: niall@innovatedental.com.

For sale: dental practice – goodwill and surgery contents. Southwest Munster. Modern, progressive, busy, fully private since 2000. Good equipment, excellent support staff. Ideal opportunity for well-qualified dynamic personality. Email germannix@gmail.com.

Premises for sale in central Thurles suitable for dental or allied professional. Has been a family doctor surgery and will soon be vacant. Contact Broderick Auctioneers, Thurles. Tel: 0504-22811.

## EQUIPMENT FOR SALE

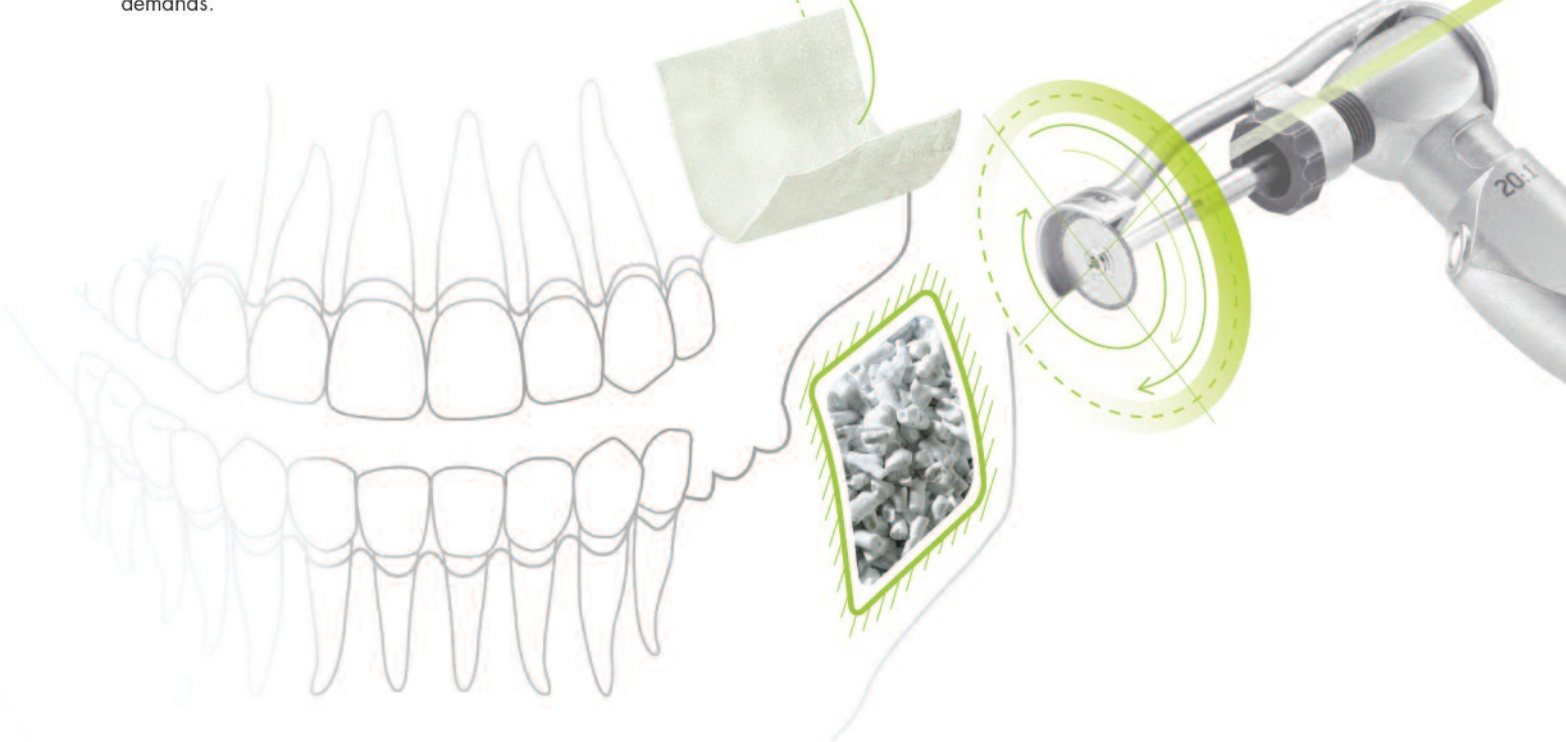
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## Specialist perspective

Dr Ronan Perry is an orthodontist based in Dublin and is Honorary Treasurer of the IDA.

### What led you to first get involved in the IDA?

I graduated from the Dental School in Dublin in 1998. As students we were all (gently) encouraged to attend our local Metro Branch lectures as an informal part of our education and training. Thus, I joined the Association as a student member and continued my membership post qualification.

### What form did that involvement take?

My initial involvement was typical of most graduates. I attended my local branch meetings to keep up to date with the ever-increasing levels of clinical knowledge, via the excellent lecture series. I also attended the Annual Conferences, which I found to be a great way to upskill and meet colleagues and friends.

I qualified as an orthodontist in 2005. In conjunction with my clinical work, I also undertook some lecturing at Metro Branch meetings. We are all on the journey of lifelong learning and I very much enjoyed this opportunity to share my knowledge and learn from my colleagues.

I have a particular interest in the more aesthetic type of orthodontic appliances. This led me to undertake an additional Masters in Lingual Orthodontics from the University of Hannover in Germany. As part of this Masters programme I undertook an analysis of the attitudes and knowledge of my IDA colleagues to cosmetic types of fixed appliances.

### How did that involvement progress?

My involvement grew in that I was asked to serve as the Specialist Practice Representative on Council, which I did from 2013 to 2015. I was subsequently asked to serve as the Honorary Treasurer, the position I currently hold.

### What has your involvement in the IDA meant to you?

It has been a unique opportunity to meet my colleagues and to obtain a much deeper understanding of the many challenges and opportunities facing the profession. I have also gained a much deeper appreciation of the level of commitment and excellence within the team at IDA house, and also of my colleagues who volunteer their time on Council. I like challenges so I am enjoying my role as Honorary Treasurer. I'm finding it beneficial and hoping I can contribute positively to the IDA.

### What has been the single biggest benefit of IDA membership for you?

For me there is more than one single benefit. The main perceived benefit is that all members obtain a reduction in their professional indemnity fees to match their IDA membership subscription. So in effect membership becomes even greater value. I have found the IDA website – [www.dentist.ie](http://www.dentist.ie) – to be a great resource with regard to keeping current with best practice, and as an excellent and cost-effective tool for practice management.

### How would you like to see the Association progress into the future?

Membership has grown greatly over the last few years, and currently stands at

approximately 1,800. Membership is currently growing at about five new applications per week. This is an upward trend that I would like to see continue. I would also like the Association to continue to be the number one provider of continuing professional development to the profession, and to continue to highlight the excellent value it offers its members.

IDA membership is a bit like insurance – it's only when something goes wrong that you need it. A lot members don't quite understand the full depth of the benefits of membership until they have a problem – a HR issue in the practice, or they're setting up a new practice and they need help with contracts. There's a huge resource available.

Ronan's time is currently taken up with the new multi-clinician practice he has opened in Dublin city centre – Dental House – which he sees as a paradigm shift in Irish dentistry in that it's in a fully integrated specialist and general practice, with onsite laboratory. He is also a keen triathlete, and completed an Ironman competition last year in Austria, which involved a 3,800m swim, a 180km bike ride and a full marathon – 42.2km. He sees this activity as important to his professional life too: "You have to look after yourself if you want to help other people".





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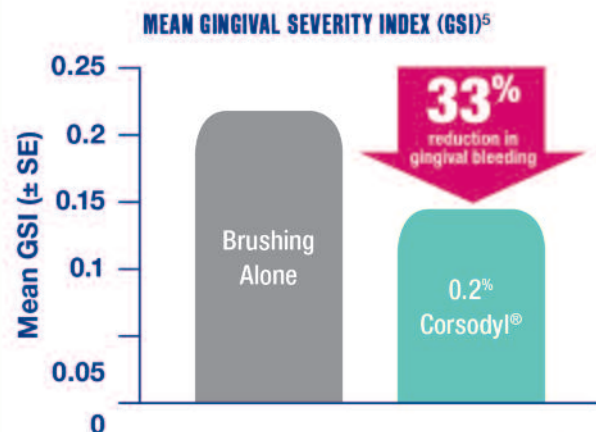
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