Volume 54 Number 2 April/May 2008

IDA
irish dental association

Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann

Orthodontic evolution

An update for the general dental practitioner

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1 in 3

Irish people suffer from Dentine Hypersensitivity[1]

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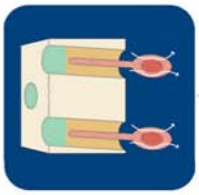
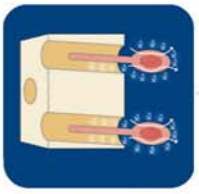
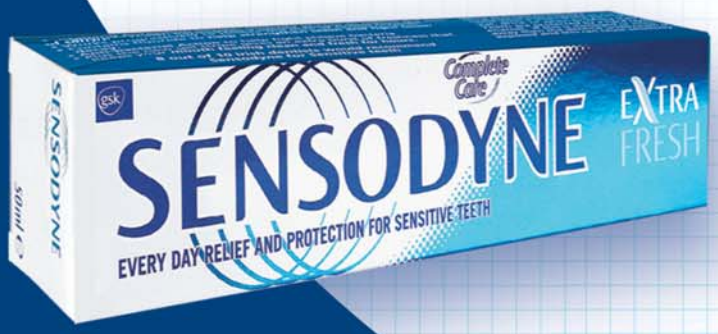


Strontium salts work by blocking dentinal tubules forming a barrier to painful stimuli.[5]



Potassium salts work by calming the nerves that cause the pain.[6]



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CONTENTS

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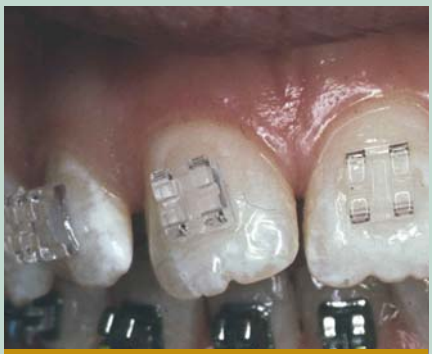
Scientific meeting in Kilkenny **58**

Recognising the patient with an eating disorder **70**



Orthodontic evolution: ceramic (aesthetic) brackets **84**

Property investments advice for IDA members **91**

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References: 1. Standard laboratory testing of dentine abrasion versus a leading soft manual toothbrush. Data on file, Colgate-Palmolive. **2.** Standard laboratory testing of bristle stiffness versus a leading soft manual toothbrush. Data on file, Colgate-Palmolive. **3.** Nathoo S *et al.* New Jersey Dental School, UMDNJ, 2006. Data on file, Colgate-Palmolive.

EDITORIAL

The challenge of mandatory CPD in dentistry

Easter is past and the bank holidays are gone, but we still have the Wexford Conference to look forward to in Whites of Wexford from April 23-26, 2008. Looking forward to meeting you there.

Our President, Dr Barry, highlights the changes that are before us with the need for mandatory verifiable continuing professional development (CPD) from 2010. Dentistry is about lifetime learning. The changes are occurring very rapidly and we have a duty to ourselves and our patients to maintain the pace. It is important that we encourage all our colleagues to embrace this change. It is encouraging to see the number of educational meetings and courses that are held in Ireland; however, it is unfortunate that the same people seem to attend the courses and we have not encouraged a universal uptake. CPD can be obtained in many ways, including reading (JIDA and quiz), and attending courses, peer review discussions and meetings. Verifiable CPD means confirmed reading/understanding of *Journal* articles, or attendance at a meeting or lecture, which has a certifiable certificate of agreed CPD points. This requires a central institution to confirm the educational value of the meeting. Many institutions, including Europe, are vying for this role. It is important that we work with the Dental Council to make it a relatively easy process for colleagues to complete. Look at this month's quiz on p.59 and see how well you score as a taster of what is to come.

Preventive dentistry is working hard to prevent dental disease. It is amazing that in 2008 we still have a problem with bottle caries and the need to extract carious baby teeth, as highlighted by Dr Bridget Harrington-Barry on p.59. There must be something we can do to solve this.

The EU News is again an excellent read (pp.67-68) and highlights the development of the European health professional card and recognition of third-country qualifications. This may have major implications for dentistry in English-speaking countries. I was amazed at a recent meeting of the UEMS in Brussels at how well everybody spoke English and, when I tried to polish my French, they only wanted to speak English. It is not unusual to be contacted by specialists from all over Europe asking for advice. Training and competencies are the golden words and it is hoped that the European health professional card will deal with this across Europe. Language will be our barrier to working in the South of France.

Ann-Marie Hardiman highlights eating disorders on pp.70-72 and the section, 'The role of the dentist' is, I believe, a must read. Again, it is about the dentist being alert to the holistic approach of patient care.

The scientific section reports on sickle cell disease and its importance in our multicultural society. It highlights the dental manifestations of the disease and how we should manage these patients (p.78). Our second article discusses denture-related stomatitis in Jordan and enables us to compare our own views and how we might use the lessons learned elsewhere to deal with this very common problem. Our third article covers the controversial issue of health economics – 'Orthodontic evolution: an update for the general dental practitioner' – and we all have to make up our own minds. I found this a very stimulating and educational article highlighting the many advances made and again supporting the need for CPD.

The abstract section (p.90) mentions an important prospective study by Balto on 'Using a cold test to assess pulpal anaesthesia' for dental treatment, which should help improve how we manage our patients.

The IDA has chosen Omega Financial Management to lead on mortgage provision for IDA members and John O'Connor (pp.91-92) explains how buyers and sellers are coping in the current marketplace and how to look after our pension savings.

This seems a good note to end on, and I thoroughly enjoyed reading the April *Journal*. I hope that you will feel the same.

Leo F. A. Stassen

Prof. Leo F. A. Stassen
Honorary Editor

PRESIDENT'S NEWS

Operation Wexford approaches

IDA President JOHN BARRY gives his final overview of IDA issues for the *Journal*.

Annual Conference 2008

The 'Operation Wexford' Annual Conference in Whites Hotel from April 23 to 26 is fast approaching. This promises to be an outstanding event as a host of international speakers are set to share their wealth of knowledge with us. Topics include hypnosis, oral cancer, implants, childhood caries, dental emergencies, sports dentistry, digital photography and practice management, to name but a few. The scientific programme will be complemented by the variety of planned social events including an opera dinner, golf simulator, President's Golf and, of course, the highlight of the IDA social diary, The Annual President's Dinner. A vast trade show comprising 45 stands will ensure that all conference delegates will be brought fully up to date with the latest dental equipment and technologies. There is just about time to send off your registration form to IDA House but please remember that registration can also be done during the conference itself. I look forward to seeing you in Wexford.

Annual General Meeting

IDA history will be made this year on two accounts. Firstly, we will be installing our first lady President, Dr Ena Brennan. Secondly, our Annual General Meeting will be held during our Annual Conference in Whites Hotel, Wexford at 10am on Thursday April 24. The AGM is an excellent platform for IDA members to raise any issues of importance to them and equally to learn of the hard work of the Association during the preceding 12 months. I encourage all members to attend.

Mandatory continuing professional development

The Dental Council has recently announced their intention to introduce mandatory continuing professional development (CPD) in 2010, which will be a prerequisite for continuing registration. CPD will be based on a five-year cycle, during which each dentist will have to complete at least 250 hours of CPD, a minimum of 75 of which must be verifiable. It is recommended that all dentists commence recording of CPD from this year so that everybody will be familiar with it prior to its mandatory implementation in 2010. Failure to comply with mandatory CPD will result in erasure of an individual's name from the Register of Dentists. The IDA is well positioned, via our conferences and training days, to play a pivotal role in the provision of continuing education for the dental profession in Ireland. The IDA CPD Committee, chaired by Dr Patrick Quinn, is doing extensive preparatory work to meet the challenges of mandatory CPD.

President's last stand

It is with regret that this edition of President's news is to be my last as I step down as President of the IDA on April 24, 2008. I hope you have enjoyed reading about the various issues I have included in the Journal over the last year. I am certain that President-Elect Ena Brennan will keep you up to date with all incoming news. I would like to take this opportunity to wish Ena every success during her year as President.

SENSODYNE

Sensitive Dentist of the Year™

ARE YOU IRELAND'S MOST SENSITIVE DENTIST?

The search is on…

Sensodyne and the Journal of the Irish Dental Association are teaming up to find Ireland's most sensitive dentist. That's the dentist who, in the words of a patient, demonstrates the most care and attention, beyond the dental treatment provided.

An independent panel of judges will adjudicate on the nominations. The award-winning dentist will be announced in the December/January edition of the Journal while the patient who nominates the winning dentist will win a family holiday in Florida.

Posters and leaflets will be provided to dentists for their surgery waiting rooms or reception areas, and the competition will be publicised nationally by Sensodyne.

For further information, see www.sensodyne.ie or contact the Journal of the Irish Dental Association on 01-8561166.

Closing date for completed entries is November 1, 2008. Full competition rules and complete information on prize is available on www.sensodyne.ie

IDA

journal of the irish dental association

Iris Cumainn Déadach na hÉireann

Introducing the 6 benefits of NEW Listerine Total Care


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IRISH DENTAL ASSOCIATION APPROVED

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Focus on emerging excellence

Well over a hundred members of the IDA Metropolitan Branch attended their Annual Scientific Day on February 22 in the Hilton Hotel, Charlemont Place.

From left: speaker Dr Christine McCreary; Metropolitan Branch Chairman, Dr Niall O'Connor; speaker Dr Johanna Glennon; and, speaker Dr Donal Blackwell.

With the theme of 'Emerging Excellence: A Multidisciplinary Approach', 23 distinguished speakers addressed the assembled delegates on a wide range of current topics. Branch Chairman Dr Niall O'Connor welcomed delegates to the meeting and introduced the speakers.

Dr Dermot Canavan spoke on 'Persistent pain after dental treatment', explaining that a lack of epidemiological studies means that there is little knowledge about patients' experience of pain during and after dental procedures.

Dr Johanna Glennon gave a presentation entitled 'The marriage of endodontics and implants'. Dr Glennon argued that the literature on endodontics and implantology is often quite confrontational, but that collaboration between the disciplines is important.

Dr Christine McCreary, in a very interesting and timely presentation on 'Medications that matter', emphasised that dentists need to be aware of the risks of osteonecrosis in patients who are taking IV bisphosphonates for malignant diseases.

In a presentation entitled 'Creating a good impression', Dr Donal Blackwell outlined the 'two cord technique' for taking dental impressions.

Over 100 dentists attended the IDA Metropolitan Branch Annual Scientific Day.

After a short coffee break, when delegates were free to visit the trade show taking place in conjunction with the meeting, Drs Frank Quinn and Paddy Crotty gave a joint presentation on 'The science and art of composite resin restorations'.

The winners of the Metro Branch annual student research award, Gillian Smith and Yvonne Rooney of the Dublin Dental School, gave a short presentation of their research project, 'Provision of dental care for special care patients in Ireland: a qualitative and quantitative study'.

Drs Karl Cassidy and Mark Kelly described their experience of setting up a practice in newly built premises, from drafting the plans and consulting with the architect, to interior design and layout of the finished premises. They offered many valuable tips to colleagues contemplating a similar undertaking.

The final speaker of the morning session was Dr Garry Heavey, who, in a presentation on 'How to set the right fee' advised delegates on practice management issues.

There were further presentations after lunch, from Drs Therese Garvey, Aisling O'Mahony and Anne O'Donoghue on 'Smile design' aesthetic analysis, and from chartered physiotherapist Eamonn O'Muircheartaigh on posture issues for dentists. A series of table discussions on a variety of topics rounded off a very successful day.

From left: Dr Niall McDonagh; Dr Michael Burke; and, Dr Conor McAllister.

From left: Dr Shane Byrne; Dr Nora Dodd; Dr Grace O'Mahony; and, Dr Emer O'Meara.

New dental award

Sensodyne and the *Journal of the Irish Dental Association* are teaming up to find Ireland's most sensitive dentist. That's the dentist who, in the words of a patient, demonstrates the most care and attention, in addition to carrying out dental work.

An independent panel of experts will adjudicate on the nominations, and the winning dentist will be anounced in the December/January edition of the Journal.

The patient who nominates the winning dentist will win a family holiday in Florida. The winning dentist will receive the title of Sensodyne Sensitive Dentist of the Year™ as well as a beautifully crafted award and the acclaim of their peers.

The competition, which is announced to the profession in this edition of the *Journal*, will be promoted nationally to patients through national and local media. Dentists will receive a poster and leaflets to display in their waiting rooms. Patients will be asked to nominate their dentist for any particular acts of kindness and compassion in recent times.

This is a new and prestigious award that will highlight the caring aspect of the dental profession to the public and among all dental professionals. Dentists are asked to support the programme by displaying the poster and brochure in their waiting rooms, reception rooms or other appropriate public areas.

Scientific meeting in Kilkenny

At the South Eastern Branch Annual Scientific meeting were, from left: Dr Donal Tully; Professor Brian O'Connell; Dr Johnny Fearon; Dr Maurice Quirke; and, Dr Una Lally.

At the ASM trade display were Mairéad McNamara of Listerine and Lorna Spillane of Nobel Biocare.

A very successful South Eastern Branch Annual Scientific Meeting (ASM) took place on Friday March 7 last. Over 50 delegates attended the meeting, which included excellent presentations from Professor Brian O'Connell, Glenn McEvoy, Dr Rory O'Neill and Dr Naomi Richardson.

Dr Michael Ormonde took over as President of the Branch, while Dr Johnny Fearon was elected Secretary for the year. Dr Ena Brennan, President Elect of IDA, was guest of honour at the Annual Dinner that evening. Some 16 trade companies attended the event during the day and their continued support for this event is much appreciated.

Dr Sorcha White takes over from Dr Paul Twomey as the South Eastern Branch representative at Council of IDA. Dr Donal Blackwell will become President Elect of the Irish Dental Association at the AGM on Thursday April 24 in Wexford.

Request for Irish volunteers

Dear Editor,

We are asking for volunteers to come and work with us in Phnom Penh, Cambodia.

We have a large dental clinic with three chairs and reasonable equipment, situated in a suburb 20 minutes from downtown Phnom Penh along the Mekong River. We provide free pedodontics services for about 5,000 orphans and vulnerable children from the many institutions around Phnom Penh.

We try to see about 25 children each morning and do the usual range of pedodontics including surgery, endodontics and preventive care. We specialise in treating disabled and traumatised children.

The patients come by truck or tuk tuk, 25 at a time, for a morning session of dentistry and hygiene instruction. We have a little multimedia room where we teach about life skills as much as possible (smoking, drugs, etc.). As overseas volunteers, you will find these children incredibly stoic and supportive of each other.

Our core Cambodian staff love meeting fellow professionals and

making new friends. They greatly value your input and skills, and are desperate to learn more dentistry. Speed is not a priority. Empathy and quality care are. You are always thanked with a polite bow.

There is quite a bit of info on: www.cambodiadentalvolunteer.com and I will be happy to answer any preliminary questions.

We know you will be as touched as we are by the hope, high spirits and friendliness of these very special children.

Thanks for your help,

Dr Robert Ogle, No. 40C, Street 480, Phnom Penh, Cambodia

www.cambodiaworldfamily.com

QUIZ

1. **Temporomandibular joint disorders occur most commonly in:**
   a) Elderly males
   b) Very young children
   c) Female patients between the ages of 15-30 years

2. **Which of the following items can result in limited mouth opening?**
   a) Ankylosis of the joint
   b) Joint infection
   c) Disc displacement without reduction
   d) Muscle trismus
   e) Neoplastic disease

3. **Bruxism is commonly associated with:**
   a) Congenital factors
   b) Side effects from certain drugs
   c) Malocclusion
   d) Parasites
   e) Anxiety/depression

Answers on page 65

Avoid soft drinks in baby bottles

The Irish Dental Association (IDA) has advised parents to monitor how often they allow young children to consume sugar-containing drinks such as soft drinks and fruit juices. IDA members have expressed concern at the number of young children requiring removal of their teeth under general anaesthetic. Dr Bridget Harrington-Barry (above) said: "All too often, dentists only get to see very young children for the first time when the child is in pain and usually the only treatment option at this stage is extraction."

The IDA also pointed to a study by the World Health Organisation, which revealed that Ireland was among the worst of 35 countries studied when it came to child and adolescent consumption of soft drinks and sweets. The IDA warned that it is not only what is put into the child's bottle or feeding cup that puts the teeth at risk of decay, but also the frequency and duration with which the teeth are exposed to the liquid.

First affinity deal agreed

John O'Connor of Omega Financial Management with the Association's Elaine Hughes.

Following extensive research, it was agreed that a number of financial deals with preferential rates would be put in place for members. Council of IDA secured the services of Mr Brendan Burgess – askaboutmoney.com – to act as chairman of a sub committee consisting of Drs Theo Hanley, Adrian Loomes and Ms Elaine Hughes to secure the best deals on the market in mortgages, income protection, home, car and building insurance, and professional indemnity insurance. Six reputable companies were offered the opportunity to tender for the IDA mortgage business and Omega Financial Management were successful after a rigorous tendering process. Tenders for the other aspects of the business are now underway.

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Education and enjoyment on offer at Conference

Revamped, refurbished and re-invigorated, the Irish Dental Association's Annual Conference takes place in Wexford on April 23-26 with a host of new features and a multitude of reasons to attend.

So what's new this year? Well, for the first time, delegates to the Conference will get a chance to attend the Annual General Meeting of the Association, and the first female President of the Association will take office. Additionally, there's a plethora of superb speakers; the social programme is fantastic; and, the trade presence is cutting-edge.

The range and breadth of topics being addressed is impressive. The highlights of the speakers over the four days include a range of surgeons, specialists, general dental practitioners, nurses, hygienists, and lifestyle, business and management experts.

And the setting – Whites of Wexford, one of Ireland's leading four star hotels – is just two hours south of Dublin in a town renowned for its fabulous opera festival.

Implants, composites, digital imaging, and practice management

Wednesday's Pre-conference programme features hands-on courses on implants, composites, and digital photography. There is also a full day programme on practice management featuring three speakers. Dr John Tiernan will speak on communications skills; Dr Kevin Lewis will address staff management; and, Dr Raj Rattan will speak on managing patient expectations.

AGM, sports dentistry, retirement, and methamphetamine abuse

Thursday morning's programme is dominated by the Annual General Meeting of the Irish Dental Association in the McLure Suite.

The afternoon kicks off with a joint presentation on 'Sports dentistry: prevention and treatment of dental trauma' by Drs Daniel and Carmenza Friedlander from Tel-Aviv. Daniel is a prosthodontist and Carmenza is an endodontist.

A special retired dentists' programme will be conducted by Mr Eamon Donnelly, a Fellow of the Institute of Pensions Managers.

US-registered dental hygienist, Ms Noel Kelsch, will speak on methamphetamine abuse and dental considerations as part of the hygienists' programme.

Lasers, stress, cancer, hypnosis, and infection control

One of the many highlights of the Conference will be the address by Dr Georgios Romanos on Friday morning covering 'What do we achieve with the use of lasers in periodontology and implant dentistry?' Later that morning, the well-known psychologist, Dr Tony Humphries will address the issues of 'Work, worth and stress management'.

On Friday afternoon, Professor Leo Stassen of the Dublin Dental School and Hospital, will address the topic: 'Modern management of oral cancer'.

Among the speakers for the nurses' programme is Ms Irene Smartt, who will explore the issue of hypnosis in a dental context in her presentation: 'Hypnosis: the magic and the myth'.

Dental technicians will get to hear presentations from Dr Romanos, Dr Humphreys and Dr Daniel Friedlander, as well as a presentation on 'Infection control in dental practice – an update for the dental team' from Dr Martin Fulford.

The power of knowledge, and poor lawyers

Saturday morning's sessions compete for the best titles of addresses for the whole conference. Mr David McCaffrey talks on: 'If only I knew then what I know now' covering the growth of a dental practice, while Dr Kevin Lewis explains 'How to keep patients happy and lawyers poor'.

And the Saturday morning session brings the proceedings of a busy and impressive Conference to a close.

AGM at Conference

For the first time ever, the Irish Dental Association will stage its Annual General Meeting as an integral part of the 2008 Annual Conference. Up to 2006, the Association's AGM was always in Dublin at the end of the calendar year. However, following the review of the IDA carried out by PWC in 2005/06, the decision was made to move the AGM to the Conference. This gives the greatest number of members the chance to attend and have a voice at the most important meeting of the year for the Association. Don't miss your chance to have your say, – be at the McLure Suite before 10.00am on Thursday April 24.

Opera, parties, sessions, dinners ... and golf

A professional conference may contain the best continuing education that a dentist will get all year, but there is also a chance to relax and enjoy the company of colleagues, peers, classmates and friends. The social programme for the Conference is full of opportunities for fun.

On Wednesday evening, there will be a recital by Anthony Kearns, the renowned Wexford tenor in the restaurant in Whites. Anyone who books a table for dinner will be able to enjoy his superb singing.

Nobel Biocare presents its Grand Party in the trade show area on Thursday evening and every delegate and trade show exhibitor is invited. Afterwards, there will be a late evening music session in the bar in the hotel.

The Annual President's Dinner takes place on Friday evening. It's a glamorous black-tie event with after-dinner dancing to the Marble City Sounds.

And, for the many golfers among you, Rosslare Golf Club hosts the Annual Golf Competition and President's Prize on Saturday morning.

Additionally, President Ena Brennan hosts a special golf outing for members of the dental trade who are exhibiting at the Conference. It also takes place at Rosslare Golf Club, but on Wednesday morning.

Historic occasion

Following an impressive term-of-office by Cork's Dr John Barry, Wexford's Dr Ena Brennan takes over as President of the Irish Dental Association at the AGM in Whites of Wexford on Thursday April 24. This is the first time in the 80 plus years of its existence that the Association will elect a female President.

Managing your team

One of the most charismatic and popular team managers ever to manage a county to an All-Ireland title, Liam Griffin, addresses the Conference on Friday afternoon at 4.30pm. Articulate, passionate and enthusiastic, Liam is renowned for having managed Wexford to the 1996 All-Ireland Hurling Championship. He is also a successful hotelier, being managing director of the Griffin Hotel Group. An engaging speaker, his address will be a non-scientific treat for delegates. His topic is, appropriately: 'Managing your team'.

The trade show

A superb trade show has been organised for the members by the Association, with considerable investment by the members of the dental trade. It offers the ideal opporunity for dentists to survey the latest equipment, supplies, medicines and consumer products. Members are encouraged to devote time as part of their attendance at the Conference to attending the trade show. The exhibitors are organised around the McLure Suite, immediately adjacent to where the main presentations for the Conference will take place.

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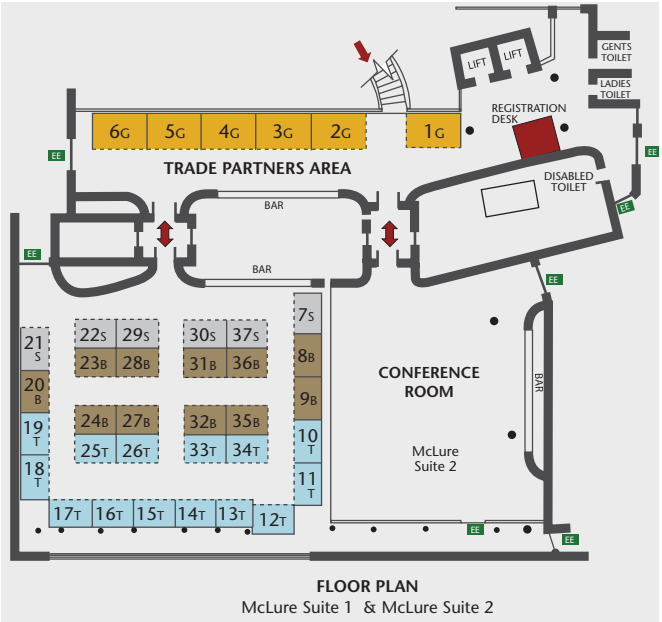
11T IDT Dental Products



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Accreditation for Wrigley's

Wrigley's Orbit Complete has been accredited by the Irish Dental Association.

Wrigley's Orbit Complete sugarfree chewing gum has been accredited by the Irish Dental Association (IDA). Commenting on the accreditation Dr John Barry, President of the IDA said: "We are delighted to accredit the Wrigley's Orbit Complete sugarfree chewing gum range. One of the main aims of the Irish Dental Association is to help achieve maximum oral health and chewing sugarfree gum after eating or between meals helps protect teeth and gums, and we are delighted to award this seal of approval to Wrigley's Orbit Complete."

The IDA, through its accreditation process, evaluates dental products for improved oral health to ensure that their claims are clinically proven and are backed up by reliable scientific evidence.

Wrigley Oral Healthcare Programmes (WOHP) support dental professionals and their associations to help encourage better oral healthcare all over the world. By commissioning credible clinical research into preventive dentistry, WOHP provides its members with information and practical resources for themselves and their patients. The Programme website, www.BetterOralHealth.info, has recently had a facelift.

The general public pages of the site are filled with information that can be easily understood by patients. Offering advice on all areas of oral health, the site provides everything that people need to know about the best way to maintain a healthy mouth. Alex MacHutchon, Communications Manager at The Wrigley Company, said: "Our programme has a strong stance on providing dental professionals with information for themselves and advice on communicating this information to their patients. We wanted to extend this education by giving patients access to a resource outside of the surgery."

Wicklow seminar

Biomet 3i has recently introduced the 'OsseoGuard Membrane', which, the company says, allows for the passage of beneficial fluids and nutrients, yet remains occlusive to gingival and epithelial cells. It requires no side-specific placement. This is the company that also brought the osseotite implant, and subsequently, the nanotite implant, to the market.

On August 21-23 next, Dr Denis Tarnow will be lecturing at a Biomet 3i half-day seminar and golf tournament in County Wicklow. Dr Tarnow will address the latest techniques and materials for more predictable treatment of patients.

Answers to quiz (from page 59)

1.	2.	3.
c.	All of the above.	a, b, e.

Integrated sterilisation system

Promed's service engineers, from left: Joe Burke, Patrick Hart and Niall Phelan.

Cross infection control has been a particular area of focus for Promed over the past three years. The company has hosted 'Cross infection control in dentistry' workshops, which illustrated the infection risks faced by dentists and dental nurses in everyday practice. The company produced a dedicated brochure, 'Guidelines for best practice in cross infection control', and launched an educational DVD, 'Decontamination procedures in the dental surgery'.

Now Promed is distributing Millrack, an integrated sterilisation system. Promed claims that it minimises the risk of cross infection, and makes it easier to facilitate a procedure that promotes best practice in the dental surgery. Millrack's integrated electrical and water-filling and drain hook-ups allow devices to be directly connected. There are also two convenient removable trays for preparing instruments and materials. The Mlllrack system is exclusively available in Ireland from Promed, which now has three full-time service engineers.

Hand pieces from NSK

According to NSK, its high-quality, affordable turbines and contra-angles from the Ti-Max X Series offer exceptional benefits in terms of speed and precision, delivering powerful cutting when dentists need it most and enabling dentists to meet the clinical and aesthetic demands of patients.

An NSK spokesperson says: "The unbeatable X Series features the latest technology yet combines elegance with ergonomic design, with each handpiece resting comfortably in the hand. You can expect nothing less than outstanding performance, reliability and value from NSK, so make your next handpiece more than just a handpiece".

The NSK range is available in Ireland from Promed, Dacus Dental, and Henry Schein Ireland.

Implantology courses

Comprehensive training in all aspects of placing and restoring dental implants is provided in an interactive implantology course presented by Dr Mark Diamond and Dr Dan McKenna over a year. Registration is now open for the 2008-9 programme, which commences in May and takes place in Belfast and Derry. Supported by Dentsply Friadent, as part of its Dental Implantology Skills Development Programme, the course equips participants to identify suitable cases, safely treat them and manage complications.

The Interactive Surgery and Prosthetics Implantology Year Course is clinically-based, enabling attendees to treat their own patients under guidance. Each day involves 'hands-on' treatment on the relevant procedures, combined with complementary multimedia lectures. Established for more than five years, the programme is CPD approved and leads to a Certificate in Implant Dentistry.

Mark Diamond and Dan McKenna have the shared knowledge of placement and restoration of 15 implant systems over the past 20 years. Both of their practices offer state-of-the-art equipment for teaching and performing dental implantology. Based in Belfast and Derry, they can offer particularly good ongoing clinical support to dentists throughout Ireland. The cost is Stg£350 plus VAT per day for advanced bookings, which can be made through Dentsply. The course is restricted to 10 participants.

The Dentsply team serving the Republic of Ireland and Northern Ireland: Managing Director Chris Meldrum; Emma Gibney, Territory Manager, Northern Ireland; and, Denis Kelly, Manager, Republic of Ireland and Northern Ireland.

Updated Procera system and shades

Procera shaded zirconia marginal fit.

Nobel Biocare recently introduced its updated Procera CAD/CAM dentistry system, featuring a fuller range of all-ceramic products and new software platform.

According to the company, Procera offers production outsourcing to dental laboratories that are looking to maximise productivity and profitability.

According to a company statement: "With Procera, laboratories spend their time doing what they do best – delivering beautiful aesthetics to their customers, instead of producing frameworks. Procera has the capacity to handle an unlimited number of orders and normally delivers products within 48 hours of order receipt. Every all-ceramic product received from a Nobel Biocare production facility is of the highest precision and perfect individual fit, and is ready for immediate use."

Meanwhile the company has also announced the introduction of three new shades of Procera crown zirconia. Now in four colours, dental laboratories stand to increase their profitability by focusing on creating superior aesthetics, instead of dyeing in house or managing a shaded blank inventory. Furthermore, experienced ceramists can often achieve the desired final colour in fewer veneering steps by starting with shaded bases, thus increasing their efficiency.

News in brief

The Barden Corporation has announced the launch of www.dentalbearings.co.uk, which it says has been specially developed to provide dental industry workers with information on their super precision range of dental turbine bearings.

The Sixth European Philips Oral Healthcare Symposium will take place in Berlin between April 9 and 10, 2008. This year the focus of the lectures will be on 'Periodontal disease – what do we really know?'

Two laboratories based in Ireland are among the expanded membership of the Techceram ACE Group of Laboratories. They are: Totten & Connolly Dental Laboratory, Bangor; and, Gordon Watters Dental Laboratory Ltd, Belfast.

PlastOff is a new spray-on adhesive plaster/dressing remover that contains a blend of silicone materials, which quickly form a layer between the adhesive bond and the skin, causing a total loss of adhesion. The plaster or adhesive dressing can then gently fall away, with no stinging or tugging.

At the 23rd Annual Meeting of the Academy of Osseointegration (AO) in Boston (USA), Nobel Biocare and the AO Foundation awarded Professor Per-Ingvar Brånemark with the inaugural Nobel Biocare Brånemark Osseointegration Award.

Dentsply has a wide range range of implantology and guided bone regeneration courses on offer as part of its Skills Development Programme for 2008. Further info from the Education Co-ordinator.

Amalgam safe – EU scientists

DR TOM FEENEY, Honorary Treasurer of the Council of European Dentists, reviews recent CED business.

Slovenian Dental Association headquarters.

The CED Board met in Ljubljana, Slovenia, on February 29, 2008, in line with its new policy of holding meetings in the country of the EU Presidency. This gives easier access to European institution personnel and, in addition, easier access to meeting essentials such as interpretation. The Board meeting was held at the headquarters of the Slovenian Dental Association.

During the meeting, an agreement was signed between the CED President Dr Orlando Monteiro da Silva and Bundeszahnärtzekammer representative Dr Wolfgang Sprekels to formalise the existing business relationship between the two bodies. The CED has rented office space and secretarial expertise from the BZÄK for many years now and this agreement gives security to the CED into the future.

The following is the up-to-date position on the most important items currently on the CED agenda:

CED endorses EU scientific committee opinions on amalgam

The CED responded last week to a public consultation on the preliminary opinions of two EU scientific committees (SCHENIR and SCHER) on the safety of amalgam. The two opinions concluded first of all that, apart from allergic reactions, amalgam did not pose a risk to health, and also that environmental risks were much lower than tolerable limits. Having already provided expertise to the Commission over the last few years, the CED did not include any scientific or technical data in its response, but issued the following statements:

In relation to health risks: "The CED welcomes the opinion of the SCENIHR, which recognises that amalgam should remain part of the dentist's armoury in order to best meet the needs of patients across the EU. It is important that patients must not be denied freedom of choice in respect of how to be treated, particularly as amalgam continues to be the most appropriate filling material for many restorations, due to its ease of use, durability and cost-effectiveness".

In relation to environmental risks: "The CED welcomes the opinion of the SCHER, while acknowledging the sparsity of evidence on environmental risks. The dental profession takes the potential environmental impact of all of its activities seriously and seeks to minimise risks, for example through strongly encouraging use of amalgam separators".

From a day-to-day viewpoint, the opinions were greatly welcomed in some European countries, including the Czech Republic, where they were used in parliament to support the continued use of amalgam as part of the dentist's armoury. The Czech Republic has a very high caries rate.

EU NEWS

The CED Board (from left): Dr Tom Feeney, Ireland; Dr Gordon Cok, Slovenia; Dr Roland Svensson, Sweden; Dr Wolfgang Sprekels, Germany; Dr Orlando Monteiro da Silva, Portugal; Dr Piret Vali, Estonia; Dr Matti Poyry, Finland; and, Dr Jiri Pekarek, Czech Republic.

European health professional card wins EU funding

A project to develop a European card for health professionals won funding amounting to almost €300,000 from the European Commission last week. The purpose of the card is to simplify the free movement of health professionals, certify the professional skills of the holder, identify the appropriate authority in the country of origin, and to accelerate and improve the exchange of information between the competent authorities.

The CED has attended several meetings of the project over the last year and will continue to monitor developments closely.

Recognition of third-country qualifications

The European Union is committed to putting an end to obstacles to free movement of persons and services. In fact, this is one of the most important objectives of the Community, meaning that all nationals of Member States have the right to pursue a profession in a Member State other than the one in which they have obtained their professional qualifications.

Directives like the Directive 2005/36/EC of the European Parliament and of the Council of September 7, 2005 (PQD) require Member States to bring into force laws, regulations and administrative provisions necessary to comply with it.

A recent conference in Portugal dealt specifically with this issue of the obligations of Member States in the context of how to handle cases where a dentist obtains his qualification outside the EU. This is relevant for Portugal because of that country's close connections with Brazil.

If a dentist with a non-EU qualification migrates within the EU, the competent authorities in the host state must require a dentist to prove that he has three years' professional experience as a dentist on the territory of the Member State that recognised his evidence of formal qualifications. For example, if a dentist with a Brazilian qualification migrates from Portugal to Ireland, he must prove that he has three years' professional experience in Portugal, by obtaining acceptable documentation from the Portuguese authorities.

However, the competent authority of a country, e.g., Portugal, can only state that a dentist from Brazil is legally able to work in Portugal, without knowing if he is actually working or not. The Portuguese Chamber is very keen to have common methods of both verifying the three years' professional experience and/or, where appropriate, common compensation methods such as examinations, applied across the EU .

Tooth whitening

The Scientific Committee on Consumer Products (SCCP) recently delivered the last in a series of opinions on the safety of tooth-whitening products used by consumers. In the opinion, which was requested by Unit F3 in DG Enterprise, the SCCP concluded that tooth-whitening products with hydrogen peroxide (H_2O_2) concentrations of between 0.1% and 6% can cause risks to consumers and should be used only after clinical examination. They advised that exposure to such tooth-whitening products needed to be limited in a manner that ensured that the products were used only as intended, in terms of frequency and duration of application, to avoid reasonably foreseeable misuse. They also concluded that tooth-whitening products with H_2O_2 concentrations of more than 6% were not safe for use by the consumer, i.e., they must only be applied by a dentist.

DG Enterprise is currently considering how to implement this opinion, and the CED fears that they are not taking sufficient account of the risk to consumers that the SCCP has identified. The CED fears that the Commission is not going to implement the opinion on the safety of tooth whiteners in an appropriate way.

At the recent board meeting the board gave its official approval to the strategy of the Tooth Whitening Working Group to challenge the Commission to implement the SCCP opinion properly. They supported the writing of a letter by the WG Chair Dr Stuart Johnston to the European Commissioner for Consumer Protection, urging him to contact DG Enterprise to ensure that the SCCP opinion is acceptably implemented.

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FEATURE

Treating the whole person: recognising the patient with an eating disorder

Dentists are in an excellent position to help patients who may be suffering from an eating disorder. ANN-MARIE HARDIMAN reports.

Dentists are busy professionals who generally have a full timetable. It can be difficult to deal with patients' dental problems in the time allotted, so how much more difficult is it to respond to problems that are not specifically dental in nature, but that may or may not have a dental component? And when that problem is more psychological than physical, the dentist could be forgiven for feeling ill-equipped to deal with it, and tempted to let it go. However, it might be easier than you think to offer support, and help a patient towards recovery.

Eating disorders

The nature of eating disorders means that sufferers tend to go to great lengths to hide their behaviour; it is therefore difficult to obtain exact statistics regarding their prevalence. However, using European figures, experts estimate that up to 200,000 people in Ireland may be affected by an eating disorder. Eating disorders predominantly affect young women, and usually begin during adolescence; however, the numbers of male sufferers, and of children diagnosed with these disorders, are increasing. With figures like that, it seems likely that most dentists will at some stage have treated a patient with an eating disorder.

According to Bodywhys – The Eating Disorders Association of Ireland: "The term 'eating disorder' refers to a group of conditions characterised by:

- severe disturbances in eating;
- emotional and psychological distress; and,
- physical consequences."

Perhaps the best known is anorexia nervosa. A person with anorexia will deliberately suppress their appetite in order to achieve and maintain a body weight that is often significantly lower than the healthy, normal weight for their age, sex and height. It follows that the most obvious sign of this disorder is a person who is excessively thin, or who demonstrates a significant weight loss, perhaps over a short time. They may also exercise excessively, or use vomiting or laxatives to 'purge' their body. Anorexia has a range of physical and psychological effects, from dehydration and excessive tiredness, to lack of concentration and poor memory. In extreme cases, it can lead to heart disease and can, unfortunately, be fatal.

Bulimia nervosa can be far more difficult to identify than anorexia, as sufferers are usually of normal weight; however, behind closed doors they may be involved in a cycle of binge eating and purging. The dentist may be the first person to identify a person with bulimia, as one of the most recognisable symptoms is erosion of the enamel on the palatal surface of the teeth.

There are a number of other eating disorders, including binge eating disorder, where sufferers engage in bingeing but without the purging, and 'eating disorder not otherwise specified' (EDNOS), where the person may display aspects of more than one disorder. All of these carry specific problems, and need a tailored approach to treatment.

Because behaviour around food is the most obvious feature of eating disorders, it is often assumed that food is the primary factor. In fact, the eating disorder is often caused by underlying emotional distress, perhaps triggered by a traumatic event in the sufferer's life, and is an attempt by the sufferer to exert a level of control over their life. In this way, the disordered eating becomes an end in itself, rather than simply a way to lose weight.

Treatment

Because of the nature of eating disorders, treatment can be difficult, but recovery is possible, especially if the sufferer is motivated and willing to engage with the treatment process. Depending on the seriousness of the condition, treatment involves a combination of medical and psychological therapy. Medical therapy depends on the extent of the physical damage that the eating disorder has caused. Psychological therapy is about challenging the underlying beliefs that have led to the person suffering from an eating disorder. Approaches such as cognitive behavioural therapy and group therapy have been used with great success.

A personal perspective

Tracy O'Dea first began to make herself sick on a trip to the Gaeltacht when she was 14 years old. She suffered from severe homesickness and was so upset that she physically couldn't eat, then, when she did eat, she got sick. After that trip, being sick became Tracy's way of coping with stresses in her life. She emphasises that for her, as for many people with an eating disorder, trying to lose weight or to be thinner was not the primary reason for her behaviour.

This situation continued for about a year, until Tracy finally told her mother, and with her family's support, she began to see a psychiatrist, who diagnosed bulimia nervosa. She describes the experience of seeking help as very difficult initially, but gradually, a course of cognitive behavioural therapy began to show results. "He made me keep a diary of everything I ate, when I ate it, and when I got sick. Patterns started to emerge, such as when I visited a particular house, or if someone said something hurtful to me, and I started to see the reasons for my behaviour. I last got sick in September 1997."

Tracy became involved with Bodywhys when she approached them for information while doing a college project on eating disorders. They invited her to train as a helpline volunteer, and these days she also gives talks in secondary schools.

As part of her training, Tracy has since discovered that strictly speaking, she did not have bulimia as she did not binge eat. She was suffering from an 'eating disorder not otherwise specified'. She is adamant that labels are not the most important things. "It really doesn't matter what you call it. I needed to figure out another way to get my feelings across."

Tracy is now studying counselling and psychotherapy and hopes to work with other people who have eating disorders.

The role of the dentist

So what does this have to do with dentists? Dr Aislinn Machesney, a dentist in Dublin, feels that this is part of a wider issue that dentists need to address. "As dentists we repair teeth, and we perhaps do not always look at the underlying reason why the repair is needed in the first place; we need to begin to do this."

However, dentists may not be sure how to approach a patient that they think may be suffering from an eating disorder. They may feel that they do not know the right questions to ask, or how to refer a patient for further help. Aislinn recommends looking at the whole patient:

- look for signs of erosion in the mouth, affecting the palatal surface of the teeth;
- look at the person attached to the teeth – are they very thin?; and,
- if the patient is not eating properly, they may be deficient in iron and some vitamins and may suffer from mouth ulcers and other related conditions.

Aislinn believes that just a few simple questions, asked sensitively, could make all the difference. Mention to the patient that they appear to have some erosion on the inside of their teeth, and explain how this is caused. "I think if you watch a person's body language at this point it will often give you an indication. This can then be followed by asking gently whether they ever suffer from vomiting.

"Often, the less direct you are in asking patients about things the more likely they are to open up. Letting the patient know that anything discussed in the surgery is confidential and will not be discussed with a parent without their permission is extremely important, particularly for adolescent patients. It may also be helpful to quietly ask the dental nurse to leave the room, so that the conversation can take place in private. Dentists have insight into patients' situations that they may be able to use to help."

Ruth Ní Eidhin, Communications Officer with Bodywhys, agrees: "If a dentist is concerned that a patient may be presenting with evidence of an eating disorder, the main action they can take is to encourage the patient in question to seek help in a way they might be comfortable with – this might be to speak to their doctor, to speak to a family member or friend, or even to call the Bodywhys helpline.

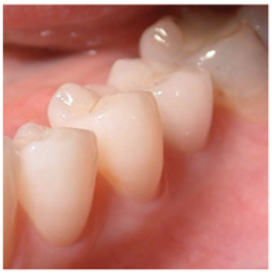
"The key thing is for dentists to familiarise themselves with the physical symptoms involved in these disorders. If a dentist is fully aware of the physical signs, then that may be an easier route towards discussing the issue with a patient, basing the discussion around the damage done to the teeth rather than confronting the deeper issues that may be leading to the purging behaviour, while at the same time advising the patient to seek help for those deeper issues."

When asked if she has any advice for dentists who suspect a patient may have an eating disorder, Tracy O'Dea says: "The important thing is not to ignore it – that says to the person 'it is okay for you to do this to yourself', and it's not. The reaction [from the patient] may not be what you would like, but even if they tell you to mind your own business, they may walk out of the surgery thinking about getting help."

BODYWHYS
The Eating Disorders Association of Ireland
PO Box 105, Blackrock, Co. Dublin.

Admin Tel: 01-283 4963 Fax: 01-205 6959
Email: info@bodywhys.ie
Helpline: 1890 200 444
E-Mail Support: alex@bodywhys.ie

Bodywhys works to promote greater awareness and understanding of eating disorders, and to provide support to sufferers and their families. Support services take the form of a lo-call helpline, support groups, and email and online support. The LoCall helpline is open for two hours each weekday and is delivered by a team of 15 volunteers, offering a non-judgmental and confidential support and information service. Visit www.bodywhys.ie, for further information on eating disorders, or contact them to obtain some leaflets or posters for your surgery.



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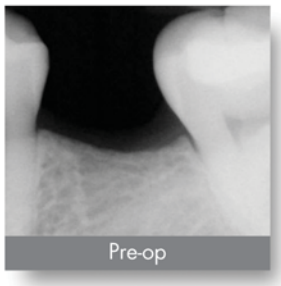

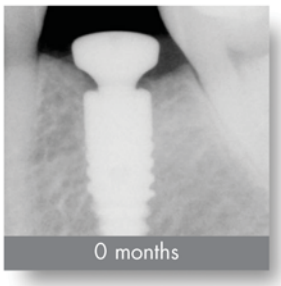

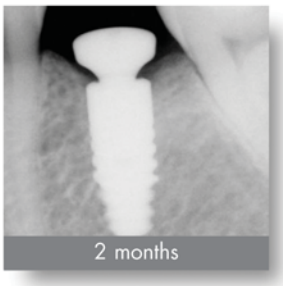

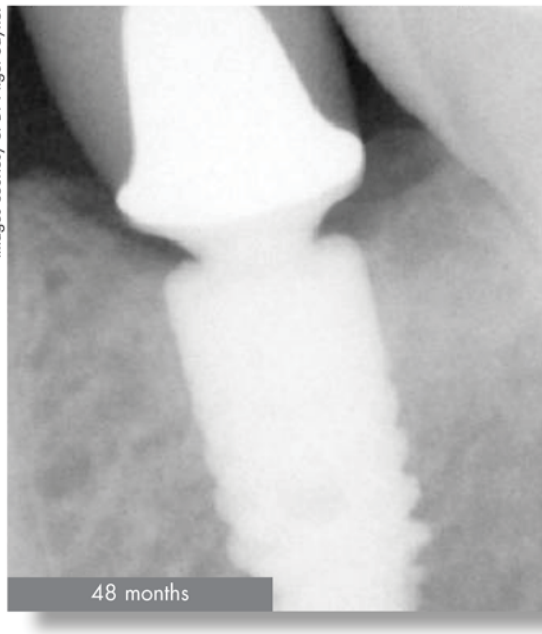

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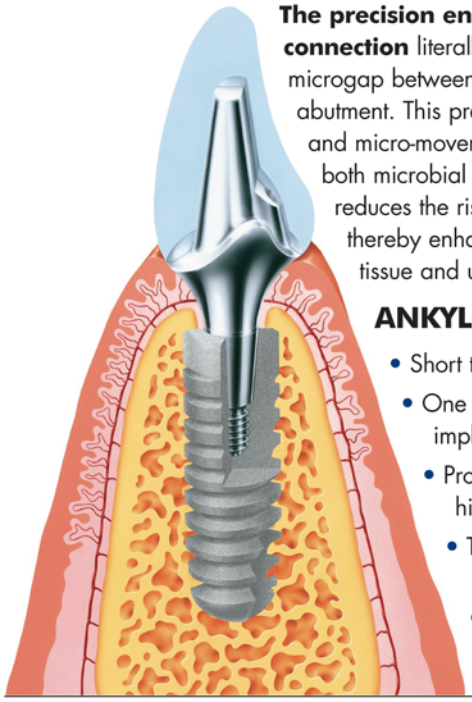

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Sickle cell disease and dental treatment

Précis: This paper offers an overview of sickle cell disease, focusing on management and practical implications for dental practitioners. Although the authors are primarily concerned with the management of paediatric patients, this article applies to all age groups.

Abstract: Sickle cell disease (SCD) and sickle cell trait (SCT) are found most frequently in individuals of African, Middle Eastern and Indian ethnicity. Population migration has made this disease more common worldwide, including Ireland. We present an overview of this disease, focusing on management and practical implications for dental practitioners.

Key words: dentistry, sickle cell disease, HbSS, anaesthesia

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Introduction

In recent years, population migration has increased the prevalence of sickle cell disease (SCD) in Ireland. An understanding of the pathophysiology and management of SCD is relevant for dental practitioners.

In the healthy subject, the most common type of haemoglobin is a compound of haem and 2α and 2β globin chains called HbA. Sickle haemoglobin (HbS) is a mutant HbA produced by a valine for glutamine amino acid substitution in the gene that codifies for β-globin chains. HbS is found mainly in individuals of African, Middle Eastern or Indian ethnicity.

SCD represents a group of inherited disorders with predominance of HbS and includes the following conditions: homozygous sickle cell anaemia (HbSS); sickle haemoglobin C disease (HbSC); sickle/beta-thalassaemia (HbS/βthal); and, other compound heterozygous conditions.[1] HbSS is the most clinically severe; however, some individuals affected by this condition may not be aware of it until they develop a sickle cell crisis. The genes for the β-globin chains are inherited according to the Mendelian laws. When the mutation is inherited in a heterozygous manner, the individual receives only one gene codifying for HbS. This defect is called sickle cell trait (SCT) or HbAS, a mixture of HbS and HbA.

HbAS is a carrier state and is not classified as SCD. SCT is more common than HbSS.

In England, approximately 3,000 affected babies (0.47%) are reported to carry SCT, with approximately 178 (0.28 per 1,000 conceptions) affected by SCD.[2]

No special precautions are required in relation to the provision of dental treatment for patients with SCT. The relevance of SCT is in relation to genetic counselling, as the affected individual carries an autosomal recessive gene for sickle cell haemoglobin.[3,4]

Pathophysiology of SCD

SCD has a variable phenotype; some children are never unwell, while others have very significant morbidity. The pathognomonic feature is vaso-occlusion, giving rise to sickle cell crisis. This is caused by HbSS polymerisation, reducing red cell deformability and increasing red cell destruction (haemolytic anaemia).

Dehydration, lowering of blood pH and hypo-oxygenation may cause HbSS to polymerise in long filaments (HbSS is 25-fold less soluble than HbAA).[5] Polymerisation affects the red cell morphology, causing sickle-shaped cells

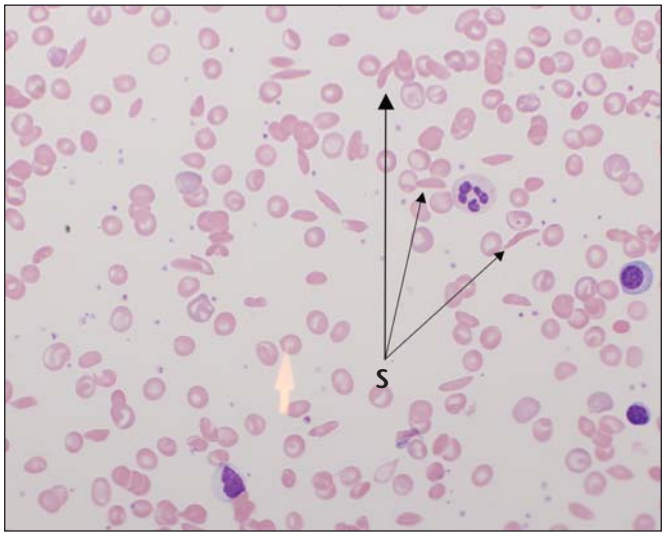

FIGURE 1: *Blood film of a patient with SCD. The black arrows show sickle-shaped cells (S).*

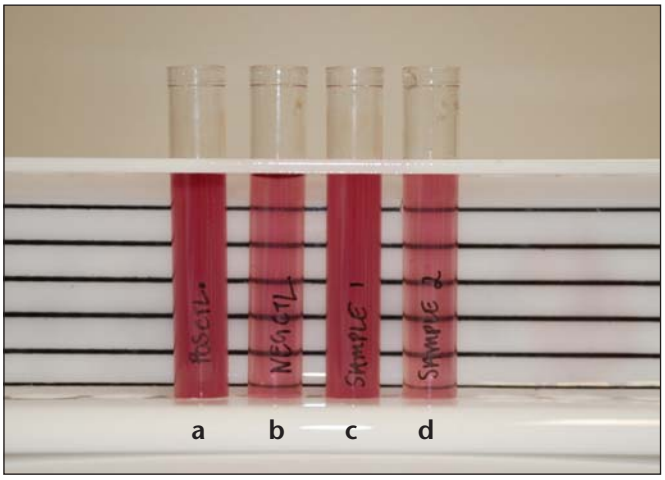

FIGURE 2: *Sickle cell solubility test (sickle cell-dex). The blood is mixed with a phosphate buffer solution; if HbS is present it precipitates, giving a turbid solution (tube A and tube C). This test is only indicative of the presence of HbS, but cannot discriminate between the heterozygous state (HbAS) and the homozygous one (HbSS), or any other haemoglobin variants.*

(**Figure 1**). When deformability is further compromised, the haemoglobin polymers break the cell membrane, leading to leakage of free Hb into the circulation, which will scavenge circulating nitric oxide (a potent vasodilator), aggravating vaso-occlusion.[6,7] The haemolysis will encourage reticulocyte production and the release of early red cell progenitors from the bone marrow bearing adhesion molecules.[8] Sickle cells adhere to the vascular endothelium, causing further damage, block the microcirculation, causing vaso-occlusion, and may lead to organ infarcts.[9] This process represents the 'sickle cell crisis'. In the presence of infection, inflammatory cytokines increase endothelial cell expression of adhesion molecules, further increasing the risk of vaso-occlusion.

Types of sickle cell crisis

A sickle cell crisis can affect any organ. The most common type of crisis is a bone crisis. Individuals less than two years of age often present with bone pain of the fingers called dactylitis. Older children may present with non-specific bone pain due to bone marrow infarction.

An acute chest crisis may present with fever, chest pain, cough and pulmonary infiltrates. The aetiology is multifactorial but the common infective causes are *Mycoplasma pneumoniae*, virus and *Chlamydia pneumoniae*. Acute chest crisis is a leading cause of morbidity and mortality.

Splenic crisis caused by intrasplenic trapping of red cells is a leading cause of mortality in children. It is defined as a haemoglobin decrease of at least 2g/dl associated with a markedly elevated reticulocyte count and a rapidly enlarging spleen. Urgent intervention with red cell support is often required.[10]

Cerebrovascular events can affect between 10 and 20% of individuals with SCD. Young individuals tend to develop vaso-occlusive stroke, while older people have haemorrhagic events. Children presenting with neurological signs or symptoms require urgent imaging and exchange transfusion to remove HbSS and replace with HbAA.

Potential precipitants of sickle cell crisis

- Acute infections are a well-known trigger of sickle cell crises. Dental infections should therefore be prevented but, if infection occurs, it should be immediately and effectively treated;[11]
- hypothermia can facilitate red cell sickling. Anaesthetic drugs may act on thermoregulation and thus enhance sickling. Hypothermia must be avoided in SCD patients who undergo treatment under general anaesthesia;[12]
- dehydration is a trigger for sickle cell crisis.[13] When general anaesthesia is required, the administration of intravenous fluids before, during and after surgery is recommended;[14] and,
- hypoxia[15,16] in association with general anaesthesia can trigger a sickle cell crisis. Intraoperative hyperoxygenation and postoperative oxygen therapy should be used as precautionary measures.[17,18]

Dental manifestations of SCD

Sickling of red blood cells may occasionally lead to infarcts in the jaws, and this may be mistaken for dental pain or osteomyelitis.[19] Tooth pulp may also be affected by sickling crisis. Kaya *et al*[20] found non-vital teeth in patients with SCD who had no previous restorations or history of trauma, implying that SCD may lead to pulp necrosis. Permanent neuropathies affecting the inferior dental nerve following a sickle cell crisis have also been reported.[21] The loss of sensation was thought to be due to infarction of the microvascular blood supply to the inferior dental nerve or its branches.

More recently, Scipio *et al*[22] reported acute facial swelling, mimicking facial cellulitis of dental origin, related to sickle cell infarction. The same paper commented on the presence of gingival enlargement as an outcome of repeated haemorrhagic infarcts and fibrous repair. Biopsy showed erythrocyte-filled intraepithelial blood vessels in the gingival epithelium.

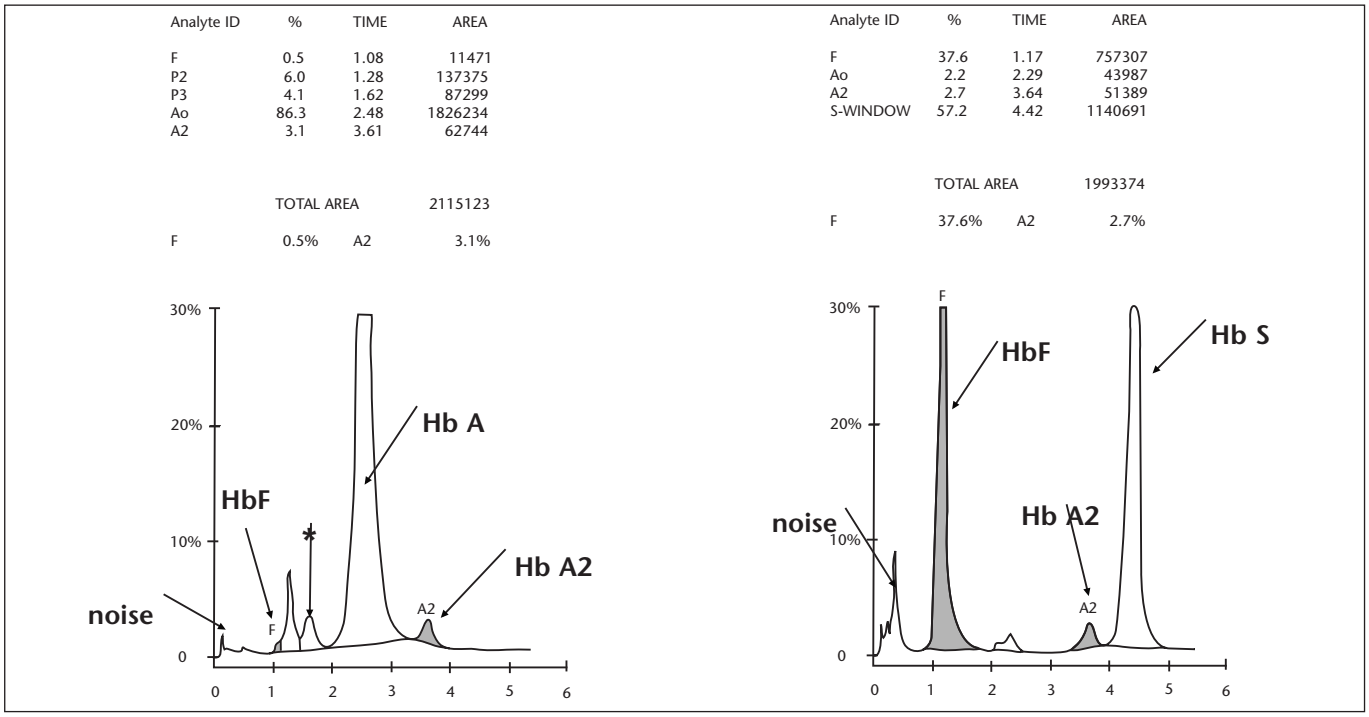

FIGURE 3a and 3b: *High-performance liquid chromatography (HPLC). This method allows separation of haemoglobin variants using an electrical field. FIGURE 3a (above left): normal haemoglobin pattern: Hb A and Hb A2 (normal haemoglobin) are detected. Note, the pic identified by * represents glycosilated Hb A. FIGURE 3b (above right): HPLC on a patient with HbSS. Note, HbF (foetal haemoglobin) and HbS pics are markedly raised.*

Diagnosis of sickle cell disease

Full blood count

A standard full blood count can help to identify an underlying haemoglobinopathy.

Blood film

The presence of sickle cells can vary from a few cells to 40% of all red cells.

Sickle cell solubility test

This entails mixing the patient's blood with a phosphate buffer; if HbS is present it will precipitate, giving a turbid solution (**Figure 2**).[23] The limiting factor in this test is that it detects the presence of HbS, but cannot discriminate between HbAS or HbSS, or any other haemoglobinopathy produced by the presence of HbS. It is unsuitable for children under six months of age.

HPLC

The definitive test is high-performance liquid chromatography (HPLC). This method allows one to separate haemoglobin variants using electrophoresis (**Figure 3a and 3b**). It gives the percentage value of HbS present. This can be useful not only for diagnosis but is also used as a marker of disease modification strategies. This investigation can be requested in a standard EDTA tube for full blood count.

Isoelectric focusing

This is often used as a confirmatory test if a variant Hb is detected on HPLC. It is similar to Hb electrophoresis but allows better definition of normal and variant haemoglobins. It is not used as a first-line test.

Once the diagnosis is confirmed, special care should be taken when informing the patients of the diagnosis. It should be taken into consideration that for many people a diagnosis of SCD is a major family stigma. Psychologists and social workers should be involved in the care of these patients. A dentist or general practitioner should request a sickle cell solubility test (sickle-dex) or haemoglobin screening (HPLC) before administration of general anaesthesia to a person of African, Middle Eastern, Asian or Mediterranean ethnicity. If positive, the patient should be referred to a haematologist.

Medical management of sickle cell crisis

Analgesia

Analgesia should be started as soon as possible if the individual complains of pain. Morphine SC/IV may be given for severe pain and may need to be continued as an infusion. Moderate pain may be controlled by regularly administered oral codeine or oral morphine. Non-steroidal anti-inflammatory analgesia and paracetamol should always be given unless there is renal or hepatic impairment, and may be sufficient if the crisis is mild. Conscious intravenous sedation with supplemental oxygen can be used in hospital settings under anaesthetic supervision.

Fluid replacement

Fluid replacement should take place with intravenous fluids at a rate of 80-100ml/kg/24 hours.

Oxygen therapy

Oxygen therapy should be given if SpO_2 <95%.

Antibiotics

If the patient is febrile >38C°, intravenous antibiotics, e.g., cefotaxime (50mg/kg tds) or IV ceftriaxone (50mg/kg od) should be considered. Oral antibiotics should be administered as the situation dictates.

Transfusion

The majority of patients with SCD are asymptomatic with baseline haemoglobin concentrations of 6-7g/dl, and do not require transfusion. A top-up transfusion should be considered when the patient is symptomatic or when the haemoglobin is less than 6g/dl.

Exchange transfusion

This procedure should be undertaken only in severe crisis, e.g., acute chest syndrome or cerebrovascular event, and should be carried out by a specialist haematology team. Exchange transfusion may be required pre-operatively for certain surgical procedures (e.g., eye surgery and neurosurgery).

Disease-modifying treatments

When there are frequent pain episodes or life-threatening events, patients may require more aggressive therapy.

Chronic blood transfusion programme

Patients with severe complications, such as stroke and CNS complications, are usually transfused on a regular basis to reduce their HbS concentration (aim <30%) and to ensure a high haemoglobin level (aim 11-12g/dl).

Hydroxyurea

This increases HbF levels, reduces white cells and platelet numbers, and increases nitric oxide production, resulting in a reduction in the number and severity of sickle cell events.

Bone marrow transplantation (BMT)

BMT is considered only when patients are not responding to other treatments, and if a HLA-compatible sibling donor is available. Matched unrelated BMT can also be performed; however, transplant-related mortality is higher than with sibling donor transplant.

Prophylaxis

In addition to routine vaccinations, patients with SCD require specific vaccination. All individuals with SCD have reduced splenic function and therefore reduced capacity to kill encapsulated bacteria. All patients should receive vaccination against *Pneumococcus pneumoniae*. Twice daily use of oral penicillin is recommended. If liquid medication is used in children, then a sugar-free medication should be prescribed because frequent use of sugary medicines is associated with increased dental decay. Patients with SCD are also more likely to receive blood products during their life; therefore, hepatitis B vaccination is also recommended. Folic acid is also provided for long-term use because of increased demand due to the high turnover of the red blood cells (haemolysis).

TABLE 1: Dental management of patients with SCD

PREVENTION
■ Dental visit by first birthday;
■ twice yearly dental visits;
■ preventive advice;
■ sugar-free medications;
■ bi-annual topical fluoride application; and,
■ fissure sealant application.
DENTAL TREATMENT
■ Avoid prolonged dental procedures.
LOCAL ANAESTHESIA
■ Standard local anaesthetic agents.
ORAL SURGICAL PROCEDURES
■ Antibiotics if compromised splenic function.
CONSCIOUS SEDATION
■ Nitrous oxide inhalation sedation.
GENERAL ANAESTHESIA OR INTRAVENOUS SEDATION
■ In a hospital setting with haematology expertise.
SICKLE CELL CRISIS
■ Emergency dental care only.

General anaesthesia and SCD

Koshy *et al*[24] evaluated the risks associated with surgical procedures in SCD, describing three groups as follows:

- low-risk procedures such as dental surgery, eyes, skin, nose, ears, extremities, perineal, and inguinal surgery;
- moderate risk procedures such as throat, neck, spine, proximal extremities, genito-urinary system, intra-abdominal areas, tonsillectomy, caesarean section, splenectomy, cholecystectomy, hip replacement; and,
- high-risk procedures such as intra-cranial, cardiovascular and intrathoracic surgery.

Dental management of the patient with SCD

A summary of the basic principles of dental management in a patient with SCD is presented in **Table 1**. Prevention of dental disease will reduce the risk of acute infection, which could trigger a sickle cell crisis. It will also reduce the need for dental treatment, with the potential requirement for general anaesthesia in very young children. A rigorous preventive regime should be implemented in all patients with SCD. Dental visits are recommended from the time of eruption of the first tooth, or by the child's first birthday. Advice and information should be given with regard to prevention of early childhood caries. Thereafter, patients should attend twice yearly, for fluoride varnish application, preventive advice and ongoing dental care through adulthood. Prompt treatment of any carious lesions should be provided. Patients who have compromised splenic function should have antibiotics prescribed at the time of oral surgical procedures due to the associated increased risk of

local or systemic infection. Should dental infection occur, it must be promptly and adequately treated, as acute infections may trigger a sickle cell crisis.

There is no contra-indication to the use of local anaesthesia in patients with SCD. Lignocaine with adrenaline 1:80,000 can be used safely.[25] Conscious sedation may be used as an adjunct to management of anxiety during treatment under local anaesthesia. Inhalation sedation using nitrous oxide and oxygen is safe, as a minimum of 50% oxygen is used (much higher than room air oxygen). At the termination of nitrous oxide administration, 100% oxygen should be administered for approximately five minutes, to prevent rapid exhalation of nitrous oxide and the potential development of diffusion hypoxia. Dental treatment under intravenous sedation or general anaesthesia should only be carried out in a hospital where haematology expertise is available.

Conclusion

Patients who require dental treatment to be provided under general anaesthesia or intravenous sedation, and with a family history of haemoglobinopathy or from geographical areas where SCD is prevalent, should be screened for SCD. A screening sickle solubility test (such as sickle-dex) should be arranged. If the results of this screening test are positive, then specific tests undertaken by a haematologist will be required to determine if SCT or SCD is present. No special precautions are required in relation to the provision of dental treatment for patients with SCT. However, if dental treatment under general anaesthesia is required for a patient with SCD, then the patient should be referred for treatment to a hospital with haematology expertise. A haematologist should always be involved in SCD diagnosis. During general anaesthesia or intravenous sedation the patient should be well hydrated, kept warm, and oxygen therapy should be made available during and immediately after the procedure.[10,26]

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SCIENTIFIC

Prevalence and risk factors associated with denture-related stomatitis in healthy subjects attending a dental teaching hospital in North Jordan

Abstract: There is scant information regarding the prevalence of denture-related stomatitis (DRS) in Jordan.

Aims: The aims of this study were to investigate the prevalence of DRS in a group of healthy Jordanian subjects wearing removable complete dentures, and to investigate for the factors that may be associated with this infection.

Materials and methods: A total of 300 complete denture patients attending a dental teaching centre in North Jordan for replacement dentures were examined thoroughly for the presence of DRS. Demographic data, including denture-wearing habits, duration of denture usage and smoking, were also obtained. Oral mucosal tissues were examined for signs of denture trauma. Dentures were assessed for plaque accumulation.

Results: Of the 300 subjects examined, 175 were male and 125 were female. The overall prevalence of DRS in males and females was 52% (157/300). Increased plaque deposits (plaque indices 2 and 3) were significantly more prevalent in subjects with severe forms of DRS ($p<0.01$). Dentures that were more than 20 years old were located in the group of subjects with grade 2 and 3 infections. A total of 86% of patients with DRS complained of denture trauma compared to 10% of subjects with healthy mucosa, and 87% of the DRS group wore dentures continuously day and night. A total of 70% of subjects with grade 3 DRS were heavy smokers (more than 15 cigarettes/day).

Conclusion: Local factors studied contributed significantly to the development of DRS in healthy subjects and are important factors to be considered in the pathogenesis of this infection.

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Introduction

Denture-related stomatitis (DRS), a commonly occurring problem in denture wearers, is a term used to describe certain pathological changes in the oral mucosa of the denture-bearing area[1,2,3] or, more specifically, describing the inflamed mucous membrane seen in the palate under a maxillary denture. The clinical manifestations of DRS can represent a spectrum of mucosal changes, but symptoms are infrequent.[3]

There are wide variations in and little agreement regarding the prevalence of DRS because of inter-operator variability in diagnosing this condition and differences in the diagnostic methods employed on different population samples in different regions of the world. Consequently, the exact prevalence is not known. As a result, many different figures have been reported for institutionalised and independent living denture wearers, with various authors quoting prevalence figures ranging from 11% to 67%.[4-8]

DRS is more common in older people because this group is more likely to wear dentures than younger people, and because their level of oral and denture hygiene is reduced, in addition to age-related chronic diseases, the use of iatrogenic drugs, and age-associated immunocompression. However, gender-related prevalences differ among studies;[9-13] therefore, no clear male/female ratio is apparent.

Although the dominant aetiologic factor now appears to be fungal infection, other factors must be considered; these include the prosthesis itself, and local (age of denture, denture hygiene, denture wearing habits, denture trauma) and systemic (poor diet, drug usage, immune diseases, hormonal

TABLE 1: Clinical grades of denture-related stomatitis according to sex.

	Denture-related stomatitis				
	Healthy	Grade 1	Grade 2	Grade 3	Total
Sex					
Male N (%)	86 (49)	33 (19)	31 (18)	25 (14)	175 (100)
Female N (%)	57 (46)	28 (22)	25 (20)	15 (12)	125 (100)
Total	143 (47.7)	61 (20.3)	56 (18.7)	40 (13.3)	300 (100)

TABLE 2: Scores of denture plaque in different grades of denture-related stomatitis.

	Denture-related stomatitis				
	Healthy	Grade 1	Grade 2	Grade 3	Total
Plaque index					
0	87	0	0	0	87
1	42	40	15	5	102
2	14	18	18	11	61
3	0	3	23	24	50
Total	143	61	56	40	300

TABLE 3: Denture trauma, continuous denture wear, and severity of denture-related stomatitis.

	Denture-related stomatitis				
	Healthy	Grade 1	Grade 2	Grade 3	Total
Night wear					
Present	13	52	49	35	149
Absent	130	9	7	5	151
Total	143 (47.6)	61 (20.3)	56 (18.6)	40 (13.3)	300 (100)
Denture trauma					
Present	15	53	48	34	150
Absent	128	8	8	6	150
Total	143 (47.6)	61 (20.3)	56 (18.6)	40 (13.3)	300 (100)

disturbances) factors.[14] Despite the fact that the changes of DRS are confined to the area covered by a complete upper denture, it is sometimes found under upper partial dentures, but rarely beneath mandibular dentures.[14] The presence of deteriorating temporary soft denture lining material is associated with increased presence of candidal species within the biofilm.[15]

In almost all patients, the duration of the lesion is usually unknown because of its asymptomatic nature. On rare occasions, patients may complain of slight bleeding and swelling in the involved area, as well as a burning sensation and/or xerostomia.[16]

In Jordan, few studies investigated the prevalence of DRS and the factors involved in the aetiology.[17] Therefore, this study aimed to investigate the prevalence of DRS in a group of healthy Jordanian subjects wearing removable complete dentures, and evaluate factors that may be associated with this infection, namely gender, denture plaque, nocturnal denture wear, trauma from the denture, denture age, and smoking. Patients with a history of physician-diagnosed diabetes, current antibiotics, antimycotics or corticosteroid use were not included in the study. Healthy subjects were selected for this study to reveal the importance of local factors in the aetiology of DRS and exclude the effect of systemic predisposing factors.

Materials and methods

A total of 300 complete denture patients attending the prosthodontic clinics at the Dental Health Centre of Jordan University of Science and Technology, Irbid-Jordan, for replacement dentures, were examined thoroughly. Among the inclusion criteria were: male or female patient wearing upper and lower acrylic complete dentures, not complaining of any medical condition, and not using any type of medication that might predispose to oral candidiasis. The severity of DRS was recorded according to Newton's classification[16] as follows: grade 1: pinpoint hyperaemia at posterior part of palate; grade 2: diffuse redness and inflammation involving upper denture-bearing area; and, grade 3: redness and erythema with papillary overgrowth. Denture plaque index was scored according to the method described by Ambjornsen *et al.*[18] Denture trauma was assessed by presence of any sign of trauma from the existing denture, accompanied by lack of retention (the denture dislodges when the patient opens the mouth comfortably), instability (complete denture that moves 2mm or more in any direction when unilateral or bilateral forces are applied to the denture base), unbalanced occlusion and/or articulation, rough fitting surface, poor fit, or incorrect jaw relationship.[2] Regarding tobacco use, subjects were divided into non-smokers, moderate smokers (1-15 cigarettes) and heavy smokers (more than 15 cigarettes). Subjects who had smoking habits other than cigarette smoking were not included in the study.

Regarding denture wear, subjects were divided into two groups: those who wore their dentures all the time and those who wore their dentures only when awake.

Results

Of the 300 complete denture patients who enrolled in this study, 175 were male and 125 were female, with a mean age of 59 years for males and 54 years for females (age range 39-100).

Table 1 shows that of the 175 male patients, 86 were free from any clinical infection, 33 were found to have grade 1 stomatitis, 31 had grade 2, and 25 patients had grade 3 clinical presentation. On the other hand, grade 1 was present in 28 female patients, grade 2 in 25, and the more severe grade 3 in 15. The overall prevalence was 52% (157/300); 51% among males (89/175) and 54% among females (68/125).

Increased plaque deposits on dentures (plaque indices 2 and 3) were more prevalent in subjects with severe forms of DRS (grades 2 and 3) ($p<0.01$), as shown in **Table 2**. Dentures that were more than 20 years old were located in the group of subjects with grade 2 and 3 infections (**Table 3**). Some 86% of patients with DRS have had denture trauma

TABLE 4: Duration (years) of denture use and denture-related stomatitis.

	Denture-related stomatitis				
Denture use (years)	**Healthy**	**Grade 1**	**Grade 2**	**Grade 3**	**Total**
<5	105	5	6	0	116
6-11	28	15	7	4	54
11-20	8	33	18	8	67
>20	2	8	25	28	63
Total	143 (47.7)	61 (20.3)	56 (18.7)	40 (13.3)	300 (100)

compared to 10% of subjects with healthy mucosa, and 87% of the same group wore dentures continuously day and night (**Table 4**). The data showed that 70% of subjects with grade 3 DRS were heavy smokers (more than 15 cigarettes/day).

Discussion

This study was carried out in the prosthodontics clinic at the educational health centre, which is the only dental centre in North Jordan where dental care is provided for patients with different socioeconomic status at low cost for educational purposes.

DRS is a common oral mucosal lesion in Western Europe and the United States.[14,19] Prevalence rates of 2.5-18.3% in adults aged 35-44 years or 65-74 years were reported, with predominance in the latter age group.[14] Although patient age and denture quality alone do not predispose individuals to this mucosal condition, the odds of developing stomatitis, denture-related hyperplasia, and angular cheilitis are increased almost three-fold in denture wearers.[20] In the present study, a prevalence of 52% was reported among healthy edentulous Jordanian subjects. This is higher than reported figures in other studies.[12,14,19,21,22,23,24] There was no significant difference in the prevalence of DRS between males and females. This is in contrast to Pires *et al*,[24] who found that females had higher infection prevalence.

Local factors that contribute to the development of denture plaque are important factors to be considered in the pathogenesis of DRS. The denture acts as a reservoir for yeast, and the factors that normally restrict the density of yeast, such as masticatory movements and salivary flow, are reduced. Furthermore, the acidic conditions beneath the dentures favour yeast proliferation, and the trauma caused by the denture may expose the epithelial receptors to Candida.[25]

Accumulation of plaque on the fitting surface of the denture is associated with development and maintenance of DRS. Budtz-Jorgensen and Theilade[26] found that one-week-old denture plaque in DRS patients contained significantly higher counts of yeast and bacteria than one-week-old plaque in denture wearers not affected by DRS, which indicates that affected patients have higher rates of plaque formation, and so, inadequate cleansing of the denture leads to accumulation of food debris, which acts as a nidus for microorganisms. Therefore, it is important to realise that plaque accumulating on any surface in the oral cavity is capable of upsetting the dynamic oral ecosystem. In the present study, plaque scores were significantly higher in patients with severe DRS than in patients with healthy palatal mucosa. This is supported by epidemiological studies that have shown a positive correlation between the amount of denture plaque and the severity of DRS.[27,28]

Trauma from the denture in the form of occlusal imbalance, lack of retention, instability, and rough-fitting surface has long been implicated in the aetiology of DRS.[29] It is thought that the low-grade repetitive physical trauma associated with ill-fitting dentures and/or incorrect occlusal relationship increases the permeability of the palatal epithelium to the antigens and toxins of microorganisms, predisposing to DRS.[25] Trauma from the denture seems to be associated with the simple localised type of DRS and, in the case of severe forms, it is a predisposing factor.[2] In support of this, all patients in the present study with grade 2 and 3 DRS were found to have some form of denture trauma.

The quality of the denture in terms of cleanliness and smoothness may play an important role in the aetiology of DRS.[30] Rough areas on the fitting surface must be smooth and, if necessary, lined by tissue conditioner such as Visco-gel or COE-Comfort, which have some anti-fungal effects.[31] Loose dentures should be re-lined using chair-side hard re-line, as soft re-lining materials act as reservoirs for microorganisms, and are difficult to disinfect.[15] Special consideration should be given to the occlusal faults, and these should be corrected by occlusal pivots and precentric check records.[32]

There is conflicting evidence on how denture usage influences the occurrence of DRS, since not wearing the dentures for several weeks will cause spontaneous remission of the infection. In the present study, nocturnal denture wear was significantly associated with the severity of DRS. This finding may be explained by the fact that when the dentures are worn continuously, the beneficial effects of saliva, including the cleansing action, are not present. This is in agreement with Budtz-Jorgensen[27] and Williamson,[33] who found that there was a ten-fold increase in the number of candidal colonies in patients who wore their dentures at night, compared with those who wore the dentures in the daytime only. In the present study, dentures worn for long periods had lower hygiene levels and were associated with the presence of DRS, and the prevalence of DRS was lower in patients with new dentures. This is in agreement with a previous study,[19] and may be due to better denture hygiene and better fit of the denture base.

Although tobacco smoke contains anti-candidal properties in the form of a saliva-soluble candidacidal factor, an increased prevalence of DRS was reported in smokers.[34] Statistical analysis showed an increase in the likelihood of DRS with increased numbers of cigarettes smoked. The results of the present study support this. This increase may be due to the changes produced by smoking on the oral mucosa, which facilitate candidal colonisation and infection.[34] Tobacco may also serve as a nutritional source for Candida, which uses certain enzyme systems to replicate polycyclic aromatic hydrocarbons as their source of energy.[35]

Although DRS is asymptomatic, it is necessary to provide treatment. Mechanical plaque control and education regarding appropriate denture-wearing habits are the most important measures in preventing and treating the infection. Denture sanitisation is also an important measure in the treatment of DRS.

If the above measures fail to resolve the condition and/or candidal involvement has been confirmed in the aetiology, then it is wise to start using antifungal agents.

Conclusion

In conclusion, DRS is relatively common among denture users in Jordan. Further studies, preferably longitudinal, are needed to understand the aetiology and the prognosis of this infection. It is important for dentists to be aware of DRS, and for patients not to use their dentures continuously in order to prevent denture stomatitis.

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SCIENTIFIC

Orthodontic evolution: an update for the general dental practitioner.

Part 1: recent advances, treatment need and demand, and benefits of treatment

Abstract: Like all specialties of dentistry, orthodontics has undergone considerable development and improvement in treatment techniques over the past four decades. The two articles in this series aim to inform the general dental practitioner about these developments, together with an update on orthodontics' relationship to dental health, TMJ dysfunction and other aspects.

Key words: orthodontics, treatment developments, treatment need and demand, epidemiology, treatment outcomes

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Introduction

The number of patients receiving orthodontic treatment in Ireland has increased markedly in the last 20 years. In 1984, the percentage of 15-year-olds who had received or were receiving treatment was 13.9%; by 2002 this had risen to 23.4%.[1,2] This is partly related to the increase in the number of specialist practitioners (up from an estimated 30 in 1992 to 110 at the present time),[3] but also to the introduction of a publicly-funded orthodontic service in the acute hospital sector for more severe malocclusions. In 2005, 23,000 patients were under treatment provided by the Health Service Executive (HSE),[2] and a similar number was estimated to be under treatment in the private sector.[3] Other developments that have contributed to the ease and efficiency of modern treatment include:

a. direct bonding of brackets to teeth;
b. prescription brackets; and,
c. flexible aligning wires.

While these three developments have been in place for the last 20 years as standard procedures, two other recent developments seem set to have just as significant an effect:

1. self-ligating brackets; and,
2. microimplants to augment anchorage.

Prior to the 1970s, the only method of securing orthodontic attachments was with metal bands cemented onto all teeth. With the advent of the acid-etch technique and the development of Bis-GMA composites by Buonocore and Davila,[4] direct bonding of brackets to teeth became a reality. This greatly reduced the time needed to place brackets and made the orthodontist's task much less time-consuming (**Figure 1**). Since then, aesthetic brackets (**Figure 2**) and lingual appliances (**Figure 3**) have made appliances more acceptable, especially to adults. Prescription brackets allow easier final detailing or positioning of the teeth; flexible archwires (**Figure 4**) allow easier alignment of the teeth in the initial stages of treatment, and self-ligating brackets have simplified the orthodontist's task, reducing treatment times by three to four months.[5]

Temporary anchorage devices (TADs)[6] can prevent loss of anchorage, especially where large tooth movements are needed, e.g., in reduction of large overjets. These consist of small screws (**Figure 5**) that are placed into the alveolus and to which springs and elastics can be applied to move the teeth as desired.

Orthodontic treatment need and demand

Defining orthodontic treatment need has, up to relatively recently, been problematic. It is important to be able to determine such treatment need in those countries that offer orthodontics as part of a public health service, for epidemiological reasons, equity

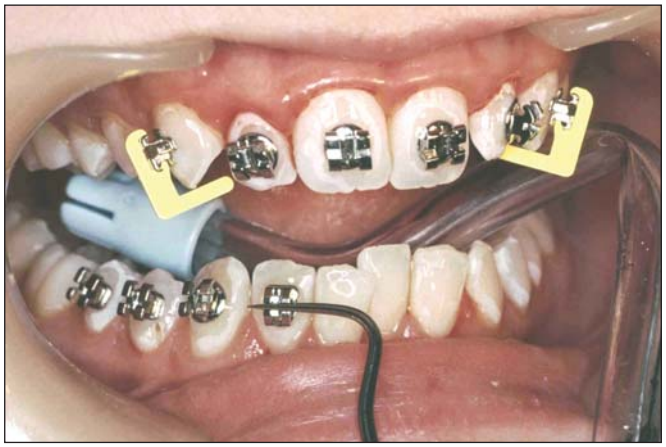

FIGURE 1: *Bonding brackets to teeth after etching.*

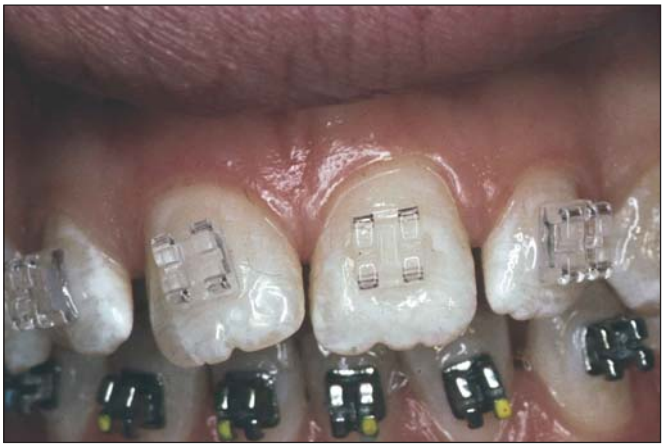

FIGURE 2: *Ceramic (aesthetic) brackets.*

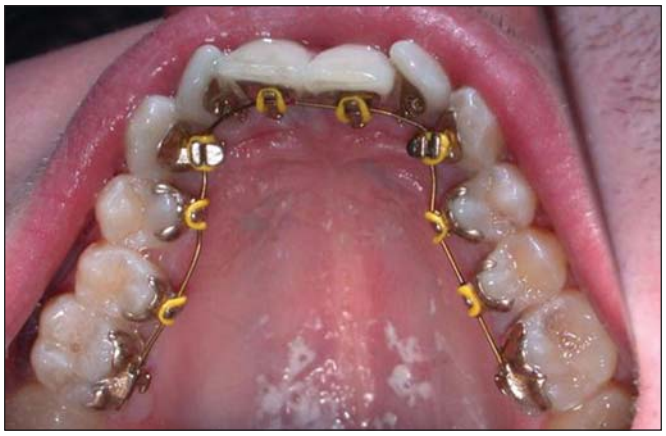

FIGURE 3: *Upper lingual appliance in place. (Picture courtesy of Dr David Hegarty.)*

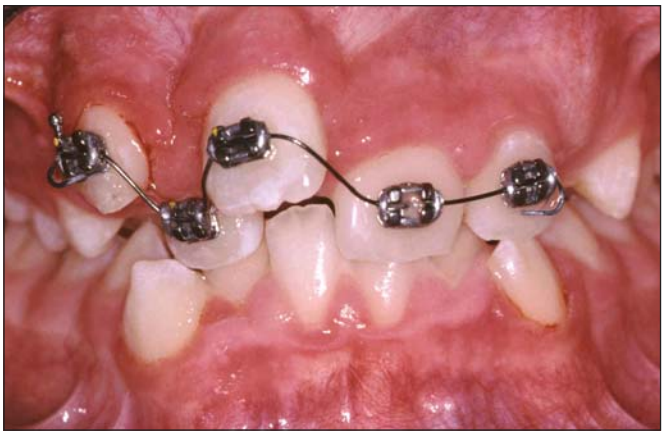

FIGURE 4: *Sectional fixed appliance to misaligned upper anterior teeth using a light force nickel-titanium alloy wire.*

of treatment access, and determining eligibility for such treatment. It is easy to identify those patients with the greatest need (e.g., cleft lip and palate, impacted canines, large overjets) and those with no need (good alignment and aesthetics), but the difficulty lies in setting the cut-off point in between those two extremes. Malocclusions do not present clinically as well-defined categories, but rather as a continuum, with an almost infinite gradation from 'no treatment need' to 'definite treatment need'.

If purely subjective opinion ('no treatment need'/'treatment needed') is used, great differences of opinion can exist among dental professionals. When a grading system or 'yardstick' is used, improved levels of agreement result. Up to the 1970s, the professionally assessed need for treatment varied greatly as different grading systems were used in different countries, resulting in a wide range of reported orthodontic treatment need – from a low of 20% to a high of 78%.[7,8] Another aspect that contributes to high levels of inappropriate referrals is that undergraduate training in orthodontics does not often adequately equip the general dentist for their responsibilities in deciding when to refer a patient for an orthodontic opinion. Kay and Blinkhorn,[9] in a survey of then recent Scottish dental graduates, found that 42% of the respondents felt that their undergraduate orthodontic training provided poor preparation for their responsibilities in the workplace; this

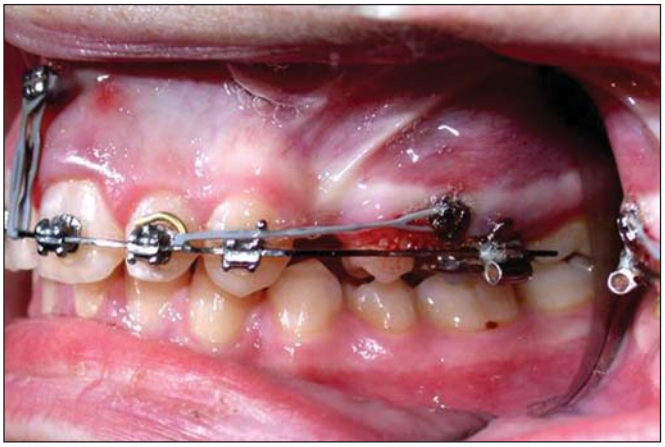

FIGURE 5: *Intra-oral implants: one in buccal region to assist overjet reduction, and a second one in the upper anterior region to aid incisor intrusion.*

has also been found in other studies.[10,11] O'Brien and Corkhill[12] found that 30% of all patient referrals from general dental practitioners (GDPs) to a group of specialist practitioners had very mild malocclusions, or that there was no need for treatment.

TABLE 1: Index of Orthodontic Treatment Need (IOTN) – Dental Health Component

Grade 5 (need treatment)

- **5h** Extensive hypodontia with restorative implications (more than one tooth missing in any quadrant), requiring pre-restorative orthodontics.
- **5i** Impeded eruption of teeth (except for third molars) due to crowding, displacement, the presence of supernumerary teeth, retained deciduous teeth and any pathological cause.
- **5a** Increased overjet greater than 9mm.
- **5m** Reverse overjet greater than 3.5mrm with reported masticatory and speech difficulties.
- **5p** Defects of cleft lip and palate, and other craniofacial anomalies.
- **5s** Severely submerged deciduous teeth (only two cusps showing above gingiva).

Grade 4 (need treatment)

- **4h** Less extensive hypodontia requiring pre-restorative orthodontics or orthodontic space closure to obviate the need for a prosthesis.
- **4a** Increased overiet greater than 6mm but less than or equal to 9mm.
- **4b** Reverse overiet greater than 3.5mm with no masticatory or speech difficulties.
- **4m** Reverse overiet greater than 1mm but less than 3.5mm with recorded masticatory and speech difficulties.
- **4c** Anterior or posterior crossbites with greater than 2mm discrepancy between retruded contact position and intercuspal position.
- **4l** Posterior lingual crossbite with no functional occlusal contact in one or both segments.
- **4d** Severe contact point displacements greater than 4mm (in HSE modification, eligible only if AC is 8, 9 or 10).
- **4e** Extreme lateral or anterior open bites greater than 4mm.
- **4f** Increased and complete overbite with gingival or palatal trauma.
- **4t** Partially erupted teeth, tipped and impacted against adjacent teeth.
- **4x** Presence of supernumerary teeth.

Grade 3 (borderline need)

- **3a** Increased overjet greater than 3.5mm but less than or equal to 6mm with incompetent lips.
- **3b** Reverse overjet greater than 1mm but less than or equal to 3.5mm.
- **3c** Anterior or posterior crossbites with greater than 1mm but less than or equal to 2mm discrepancy between retruded contact position and intercuspal position.
- **3d** Contact point displacements greater than 2mm but less than or equal to 4mm.
- **3e** Lateral or anterior open bite greater than 2mm but less than or equal to 4mm.
- **3f** Deep complete overbite but with no gingival or palatal trauma.

Grade 2 (little)

- **2a** Increased overjet greater than 3.5mm but less than or equal to 6mm with competent lips.
- **2b** Reverse overjet greater than 0mm but less than or equal to 1mm.
- **2c** Anterior or posterior crossbite with less than or equal to 1mm discrepancy between retruded contact position and intercuspal position.
- **2d** Contact point displacements greater than 1mm but less than or equal to 2mm.
- **2e** Anterior or posterior open bite greater than 1mm but less than or equal to 2mm.
- **2f** Increased overbite greater than or equal to 3.5mm without gingival contact.
- **2g** Pre-normal or post-normal occlusions with no other anomalies (includes up to half a unit discrepancy)

Grade 1 (None)

- **1** Extremely minor malocclusions including contact point displacements less than 1mm.

Under the HSE modification of the IOTN (July 2007), all patients falling into DHC grade 5 are eligible for treatment through the HSE. Patients who are DHC grade 4b, 4m, 4c, 4l, 4e and 4f are also eligible (but not 4h, 4a, 4t or 4x). Patients with category 4d (displacement of contact points/crowding) have to show, in addition, an Aesthetic Component grade of 8, 9, or 10 (see **Figure 6**) before they can qualify for free treatment.

In just over two-thirds of referrals, it has been found that patient motivation for orthodontic treatment is primarily as a result of an opinion given by the GDP:[13,14] this reflects the patients' 'faith in the system', and also reflects the implicit message that referral to a specialist is both necessary and worthwhile.[15] In identifying the potent influence of the GDP on the decision to undergo orthodontic treatment, Gosney[13] stressed that professional guidance only should be delivered and that GDPs should avoid impressing their aesthetic values on the patient – dentists and orthodontists are more critical of dental aesthetics than the general public.[16,17]

In the United Kingdom in 1986, a report[18] commissioned by the Department of Health stated that a great deal of orthodontic treatment as provided through the UK's General Dental Services was dentist-led and that certain patients, especially those with minor malalignments, were not benefiting from such treatment. In order to address these problems, a number of UK university orthodontic departments collaborated in the late 1980s to produce indices of treatment need and standards. One is the Index of Orthodontic Treatment Need (IOTN),[19] which has two components. The first of these is the Dental Health Component (DHC) (**Table 1**), which has

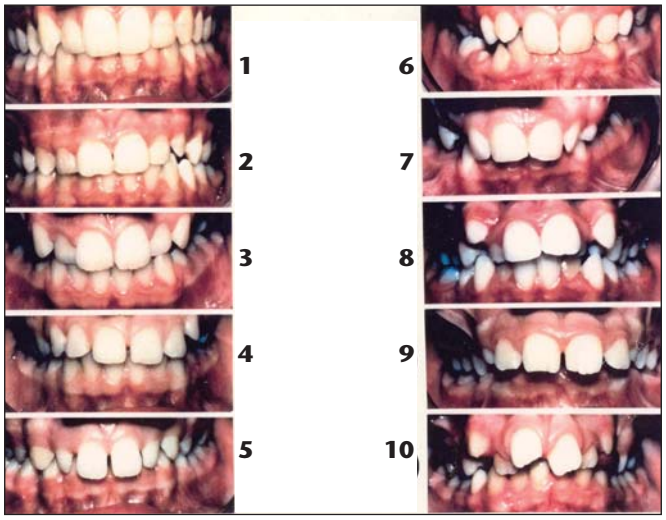

FIGURE 6: *The Aesthetic Component (AC) of the Index of Orthodontic Treatment Need (IOTN) (© Victoria University of Manchester). Grades 8, 9 and 10 are used to evaluate crowding in the HSE-modified IOTN as used in Ireland.*

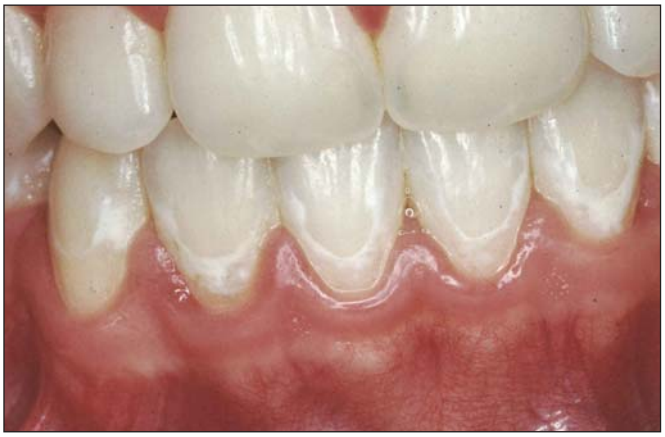

FIGURE 7: *Decalcification ('white spots') due to plaque accumulation around orthodontic brackets.*

five categories, ranging from grade 1 ("no treatment need") to grade 5 ("great treatment need"), the latter including cleft lip and palate, impacted teeth, multiple congenitally absent teeth, overjets greater than 9mm, and so on. The second component of the IOTN is the Aesthetic Component (AC) (**Figure 6**), which consists of a series of pictures of malocclusions with increasingly poor aesthetics, ranging from 1 (best appearance) to 10 (worst appearance). The IOTN is used widely in the UK and in a number of other countries to determine eligibility for public orthodontic services; recently, it has been adopted for use (in a modified form) in the HSE in Ireland.[20] This modification was adopted in light of the levels of orthodontic specialist staffing within the HSE, and also to ensure that those with the most severe malocclusions, both from a dental health and aesthetic viewpoint, received treatment.

It has been found in a number of public dental health surveys in the USA and UK that the need for orthodontic treatment is approximately 33% in adolescents.[21-23] More recently, the North–South Survey of Children's Oral Health in Ireland[1] showed that 35% of 12-year-olds were in need of treatment using the IOTN.

Where treatment is free at the point of delivery, demand will inevitably outstrip supply. Helm[24] found that if all barriers to orthodontic treatment were removed, up to 60% of the adolescent population would seek such care. Treatment need priority indices have been developed for use in Sweden,[25] Norway,[7] Denmark[26] and the Netherlands;[27] the IOTN fulfils this role in the UK and, as mentioned above, in the HSE.

Benefits of orthodontic treatment

Malocclusions do not predispose to caries or periodontal diseases;[28,29] however, enamel decalcification and caries can occur during orthodontic treatment if oral hygiene is not maintained at a high standard (**Figure 7**), and other problems such as root shortening are not uncommon.[30] Apart from improvement in aesthetics, the dental health gain for most patients from orthodontics is "modest, to say the least".[31] Only a few patients with very extreme malocclusions are likely to suffer dental destruction. Ackerman and colleagues[32] commented recently that:

"The ABO [American Board of Orthodontics] is still somewhat infatuated with the traditional and paternalistic view of malocclusion as a disease, and the view that deviations from the ideal need treatment or cure. … Unfortunately, ideal occlusion is used synonymously with normal occlusion. The weighted evidence in contemporary literature does not support ideal occlusion as an absolute requisite for orthodontic health. Furthermore, evidence is lacking for any oral health benefit derived from obtaining ideal occlusion in orthodontic treatment".

As general dental health improves, a new generation of dentate middle-aged and elderly patients are now presenting for treatment, the motivation being on maintenance of good dental health and improvement in aesthetics, including provision of orthodontic care.

The chief gain of orthodontic treatment is improved dental appearance: this, in turn, gives rise to considerable social gain, as distinct from psychological gain. This will be discussed in the second paper in this series.

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Ectopic eruption of first permanent molars: a preliminary report of presenting features and associations

Mooney, G.C., Morgan, A.G., Rodd, H.D., North, S.

Aim

To investigate presenting features of ectopically erupting first permanent molars and associations with other dental anomalies.

Study design

Prospective convenience study.

Methods

A group of 28 panoral radiographs were collected, over a 24-month period, of 7- to 11-year-old children with radiographic evidence of ectopic eruption of first permanent molars, who presented to a dental teaching hospital in England. A further 20 radiographs were collected of matched patients with no evidence of ectopic molar eruption. All radiographs were analysed under standard conditions to record the distribution and type of ectopic eruption (if present). In addition, the presence of the following dental anomalies was noted: cleft lip and/or palate; supernumerary teeth; hypodontia; and, infraocclusion of primary molars. Chi-squared analysis was performed to determine any significant differences in the frequency of these dental anomalies between ectopic molar and control groups.

Results

For patients with ectopic molar eruption, the majority demonstrated ectopic eruption of either one or two first permanent molars (32% and 57% of subjects, respectively). There was a similar proportion of 'jumps' and 'holds'. Some 92% of these were maxillary teeth and there was equal left and right distribution. Interestingly, a positive record of ectopic eruption was only documented in the dental records of 35% of these subjects. Children with ectopic eruption were significantly more likely to have at least one additional dental anomaly than was the case for the control group (60% vs. 25%). Notably, primary molar infraocclusion and cleft lip/palate were significantly more frequent in the ectopic group.

Conclusions

This study, the first in a British population, identified a significant association between ectopic eruption of first permanent molars and other dental anomalies. A multifactorial aetiology is thus supported and clinicians should be alert to the co-existence of ectopic eruption and other dental anomalies.

Eur Arch Paediatr Dent 2007; Sep 8: 153-157.

ABSTRACTS

Periodontal problems associated with compromised anterior teeth

Byrne, P.J., Irwin, C., Mullally, B., Allen, E., Ziada, H.

Abstract

Periodontal disease can significantly impact on the appearance of the anterior teeth. Prior to any definitive treatment, stabilisation of the periodontal condition is a requirement. Treatment options can range from the placement of simple restorations, through orthodontic realignment, to the extraction and replacement of hopeless teeth. Each treatment plan must be individually tailored to the patient and level of periodontal disease, and must include provision for maintenance periodontal therapy.

Clinical relevance

Periodontal diseases may compromise the prognosis of anterior teeth. Management is challenging and clinicians should take into consideration the short- and long-term survival in treatment planning.

Dent Update 2008; 35: 21-28.

Management of patients with reduced oral aperture and mandibular hypomobility (trismus) and implications for operative dentistry

Garnett, M.J., Nohl, F.S., Barclay, S.C.

Reduced oral aperture and mandibular mobility/trismus are relatively common conditions that can be encountered in patients attending general dental practice, community dental practice and district general or dental teaching hospitals. All dental specialties may see patients with these conditions, and regardless of which environment or specialty, both patient and clinician may experience significant problems. The purpose of this opinion-based paper is to identify and review the causes of such conditions, to review the development of problems encountered for patients and clinicians, and to identify options to treat or manage the conditions.

British Dental Journal 2008; 204: 125-131.

Using a cold test to assess pulpal anaesthesia

Balto, K.

Design

This was a randomised controlled trial (RCT).

Intervention

Groups given a true cold test (test group) or a sham cold test (control) were compared.

Outcome measure

If pain was experienced during the procedure, patients were asked to point to their level of pain on a visual analogue scale (VAS). Stages of the RCT were divided as follows: before entering the pulp chamber; while entering the pulp chamber; preparing the canals; irrigating the canals; and, obturation of the canals.

Results

Unadjusted results showed that 12% of test subjects experienced pain during the RCT compared with 38% of control subjects (N=83; P 0.004; power, 84%). Multiple logistic regression analysis controlled for confounders and effect-modifiers (odds ratio, 0.20; P 0.01). Subjects who had a negative response to the cold test were approximately 80% less likely to experience pain during the procedure than subjects who had only soft tissue signs of anaesthesia.

Conclusions

The cold test is a significantly better indicator of pulpal anaesthesia than the current standard of care, i.e., using soft tissue signs alone. We strongly advocate the use of the cold test to assess pulpal anaesthesia.

Evid Based Dent 2007; 8 (4); 102.

New mortgage package for members

The Irish Dental Association recently appointed Omega Financial Management as its preferred mortgage provider. Omega's Managing Director, JOHN O'CONNOR, provides a detailed question and answer article on discounted mortgages, property and investment for members.

Is there a specific discount to IDA members?

Yes, the discounted rate provided to dentists is a two-year tracker rate of 0.74% above the European Central Bank (ECB) rate. This currently gives an effective rate of 4.74% for the first two years. There are no loan-to-value restrictions on this rate and it is available to first-time buyers, people trading up, or members moving from a higher rate with another bank.

Amount	Savings year 1	Savings year 2	Total savings
€350,000	€1,716	€1,716	€3,432
€500,000	€2,460	€2,460	€4,920
€750,000	€3,686	€3,686	€7,372

The above figures are based on a 25-year term comparing the two-year discounted rate (apr 5.3%) against the ICS standard variable rate (apr 5.6%)

Is there only one lender available?

This discount rate is offered by ICS Building Society only through Omega but the service extends well beyond one bank. We currently have a letter of appointment from all the major high street banks and can offer an independent service to members. If, for example, a member didn't qualify for the scheme, we are very happy to continue to try the other banks and will advise which product is best in terms of cost and flexibility for the member.

What happens at the end of the two-year discount?

We write to all clients in the discounted scheme two months before the discounted period comes to an end. Because we can see what other banks have to offer, we recommend we shop around and return to the original lender with the best comparable rate request so that they match it. We are happy to tell them that if they don't produce a satisfactory result, we will move the mortgage to another lender. Thankfully the response is normally positive and I am happy to say at this point that we have never had to move someone.

Is the discount available on investment properties?

No, I'm afraid not. However, I would suggest investors check their rates very carefully on investment properties. Our experience is that many are paying very high rates compared to what's available at the moment. Banks rarely tell an existing client when they are paying too much. It takes no time to check it and we can tell you the best rates very quickly.

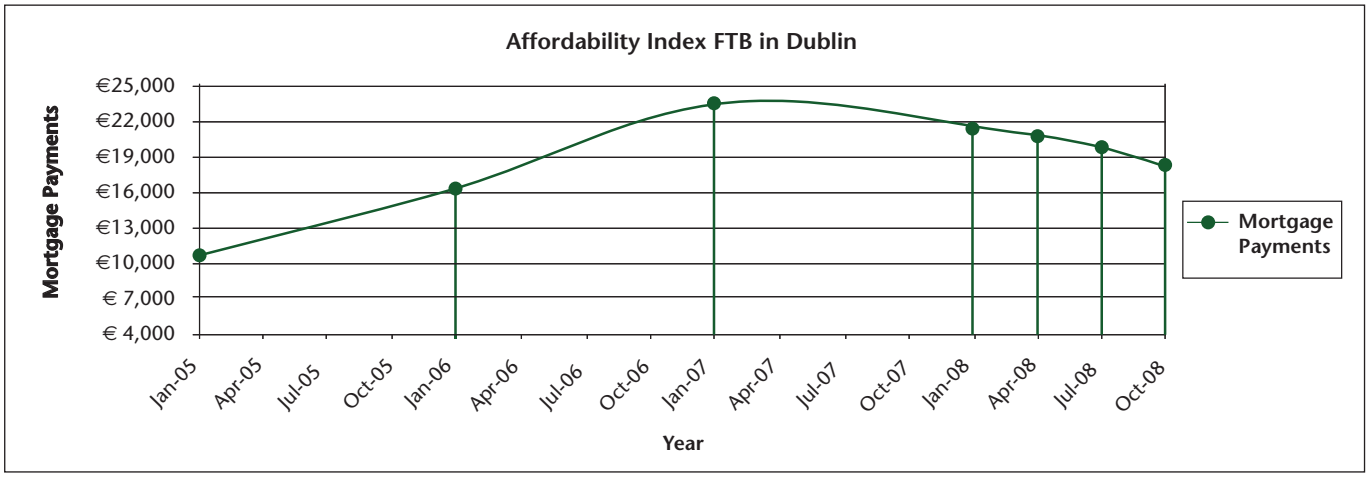
How are buyers and sellers coping in the current property marketplace?

Since the beginning of the new year, there has been considerable speculation about where the Irish property market is headed. The credit crunch has had the effect of reducing the availability of cash for buyers to spend in the market

The first couple of weeks of the year were full of doom and gloom and it seemed the Irish media wanted everyone to carry a depression all the way through 2008. The overall impression was that the Irish economy was going into free-fall, suffering severely from the mal-effects of a poor construction industry. The implications of many articles were that 2008 was a year to batten down the hatches and hold on tight because it was going to be a rocky ride.

Since the middle of January, however, the tone of consumer sentiment has changed. While the measurement of property prices shows a continuing fall in prices, it must be remembered that there is a delayed reaction in the timeframe of these measurements. What I mean is that any property deal that is agreed in March will not be completed until April or May. By the time the results are recorded officially, it will be June before they reach the pages of the media. This lag means the reporting of activity is out of date before it is even published.

We have seen a considerable change in the punters' view of the property market but where that attitude is now is hard to pinpoint. The first-time buyer is starting to see value in house prices after a torrid 2007 for sellers. On both sides of the coin, we have seen how the market has been affected. Last year, the first-time buyer stayed away from purchasing completely and left both the property developer and the home seller to sweat over their assets. With so little activity from buyers, there was no real choice for both parties but to drop their price. It can be seen around the country that new developments have been left vacant and that private sellers have had 'For Sale' signs on their homes for eight, ten or 12 months without receiving an offer. In many cases they have taken the sign down due to embarrassment.



Now, up to 18 months into the drought, the correction in prices is starting to take effect. Sellers (both developers and home owners) know that if they price their property too high, they will get no interest from buyers and will be left hanging. This leaves the purchaser in a very strong buying position. The property supplements in the national newspapers show advertisements from developers proudly announcing €80k to €100k reductions in prices. This, in tandem with the private seller having more realistic expectations of their prices, has encouraged many potential buyers to dip their toe back in the water again.

Are houses more affordable now?

Having established that prices have fallen to more pragmatic levels, it's worth asking the question: to what extent have house prices actually become affordable to the first-time and subsequent buyers?

The graph shows how the change in house prices has affected affordability for the first-time buyer over the last two years. It is easy to see that the effect of both increasing prices and interest rates had a very negative impact on people's ability to afford homes.

The steep rise in the graph reached its peek in April 2007, at which time the property market was extremely quiet. The result was a fall in prices and change in people's ability to repay loans of this type. When the increase in salaries that has also taken place is taken into account, then you can see an even better situation arise.

The outlook for interest rates in Europe is for them to at least stay where they are for the year. There are some inflationary concerns and, as a result, the European Central Bank will try its hardest to leave them as they are for the coming year to counteract these concerns. However, some economic commentators are predicting two falls of 0.25% in the year, which would be a great help to the property market and would encourage people to buy again. Either way, it seems that the correction of prices is well underway and that new price levels will be reached this year that definitely favour the buyer compared to last year or 2006.

Can I use my pension to invest in property?

The idea that you can control where your pension savings are invested is very appealing to people who wish to take more control of their retirement savings. The thought of being able to invest your pension fund in a property or shares of your choice is much more attractive than just writing a cheque to a fund manager each year and waiting until the year end to find out how it performed.

For example, John is a dentist who has put money into his pension each year for the last five years. He now has €250,000 in the fund but really doesn't know what assets its invested in or how well it is performing.

By moving it to a self-directed fund, John can choose to have a much more hands-on approach to where the funds are invested. For example, he can purchase a property for €400,000 using €100,000 of his pension fund and borrowing the rest. With the balance remaining he can purchase shares in any company he wishes. He may choose AIB, CRH and Kingspan because he feels they offer good value. And to add a bit of spice he may decide to invest some of his funds into China using an equity fund.

Overall John feels much happier about his pension savings because he has much more control. He has set a goal for himself to have €1m in his fund at age 60 and being able to invest it in this manner he feels he has a much better chance of being able to achieve that.

Preferred provider

Following a rigorous tendering process by the Association, Omega Financial Management was appointed as the preferred mortgage provider to members of the IDA. Managing Director, John O'Connor comments: "We are delighted to be appointed as the preferred mortgage advisors for the Irish Dental Association. We operate many group schemes for professional bodies, but our experience since we began dealing with dentists in 2005 has been extremely positive and one of our preferred professional groups."

John O'Connor can be contacted at 1850 260 261 or by email at john@omegafinancial.ie.

Dentists can also visit the IDA members' page on www.omegafinancial.ie.

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Classified advert procedure

Please read these instructions prior to sending an advertisement. On the right are the charges for placing an advertisement for both members and non-members. Advertisements will only be accepted in writing via fax, letter or email (fionnuala@irishdentalassoc.ie). Non-members must pre-pay for advertisements, which must arrive no later than April 30, 2008, by cheque made payable to the Irish Dental Association. If a box number is required, please indicate this at the end of the ad (replies to box number X). Classified ads placed in the Journal are also published on our website www.dentist.ie within 48 hours, for 12 weeks.

Advert size	Members	Non-members
up to 25 words	€75	€95
26 to 40 words	€90	€110

Non-members must send in a cheque in advance with their advert. The maximum number of words for classified ads is 40.

Only if the advert is in excess of 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

POSITIONS REQUIRED

Cork graduate returning from UK following sale of expense-sharing multi-surgery practice. Interested in associate with view, retirement sale, expense-sharing arrangement. Munster area preferable but all areas considered. Email: allenjcpd@msn.com.

Experienced dentist is looking for a position in areas of South Dublin, Bray, Wicklow (part- or full-time). Please Tel: 087 326 5654, or Email: m.dental08@gmx.de.

POSITIONS VACANT

Mayo. Full-time associate required. Must have a minimum of one year's post-qualification experience. Modern equipment, fully computerised, digital OPG. Accommodation available. Excellent remuneration. Tel: 086 600 1719.

Busy Northside Dublin practice requires full-time dental associate to replace departing colleague. Fully computerised, digital OPG, hygienist and modern equipment in long-established surgery. Please Tel: 086 236 4375 (evenings), or Email: banded@iol.ie.

Friendly associate required (full-time) for a very busy practice in Nenagh, Co. Tipperary. OPG and laboratory on site. Tel: 087 686 6180.

Experienced dental associate required for a busy, modern dental practice in Galway City. Fully-equipped and computerised (digital x-ray, OPG, hygienist, etc.). Please Tel: 087 803 4514, or Email CV to lisatuohy2006@yahoo.ie.

Full-time dental associate for Newbridge, Co. Kildare, 9.00-5.30 Monday to Friday. Flexible start. Good ability in endo essential. Tel: 045 441812 (evenings/weekends), or 045 431676 (weekdays).

Experienced dentist required for busy, purpose-built medical centre in Dublin West. Very rewarding arrangements. Excellent support staff and collegiate environment with two other dentists. Digital x-ray, incl. OPG. Bridges computerised. Excellent future prospects. Please Email: dentistwest@gmail.com.

Drogheda, Co. Louth. Associate required. Full/part-time. OPG, computerised. Private, PRSI and Medical Card. Tel: 086 232 6212.

Associate required for busy, well-equipped practice 40 minutes from Cork City. Tel: 087 210 1185.

Dental associate required to replace departing colleague. Modern general dental practice with visiting consultant. Opportunity for cosmetic dentistry/endodontics. Full book immediately. 40 minutes south/west of Dublin. Tel: 086 824 4606 (evenings), or Email: dentalgeneral@hotmail.com.

Meath. Experienced associate required, full-time or part-time, replacing busy long-established incumbent. Almost exclusively private. No GMS. Computerised with every mod con including rotary endo, digital OPG and I/O, microscope. Hygienists. Please Tel: 086 815 7705 evenings and weekends.

Associate wanted for one to two days per week in South Dublin. Days flexible with potential to expand to five days within short space of time. Tel: 087 834 4001, or Email: jpdheaney@eircom.net.

Dental associate required for modern busy dental practice in Limerick City. Fully computerised, dental hygienist, digital OPG, full-time or part-time available. Tel: 087 853 7313, or Email: cornmarketdental@eircom.net.

Experienced conscientious associate (part-time to full-time) and locum (maternity leave August to February) required for busy Athlone practice. OPG, digital x-rays, computerised. Tel: 087 206 8020, or Email: dentalvacancy@hotmail.com.

Associate wanted full-/part-time to replace departing colleague in busy modern practice in Portlaoise. Excellent conditions, great staff, OPG, hygienist, visiting orthodontist. To start April. Tel: 086 384 4011 after 6.00pm.

Associate position offered from April 2008. Modern computerised dental surgery, 10 minutes from city centre, North Dublin. Tel: 087 682 6840, or 01 838 9966.

Dental associate required for busy South Tipperary dental practice. Please Tel: 087 695 0686, or Email: ronan_odonoghue@yahoo.co.uk.

Associate dentist required to join busy family practice in South East County Galway. Modern surgeries, full chair-side and clerical support, OPG, Ozone, etc. Please Tel: 086 809 5809, or Email: rothwellauct@eircom.net.

Dentist required as associate for group practice in Dundalk, starting April 2008. Air-conditioned surgery. Fully computerised practice with digital x-ray, hygienists and support of other colleagues. Tel: 087 287 9858, or Email: dentalsurgery@dbholly.com.

Associate wanted to replace departing colleague – May 2008 in south-east. Modern, computerised multi-surgery practice, digital radiology, OPG, rotary-endo, elements-obturation. Qualified support staff, hygienist, private/PRSI only, visiting oral surgeon, sedation facilities.

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Experience essential. Superb opportunity. Tel: 086 858 6673 after 6.00pm, or Email: qds@eircom.net.

Associate wanted for busy thriving practice in Co. Tipperary. Modern fully equipped surgery, OPG, hygienist and excellent support team. For further information contact Linda, Tel: 087 228 1282, or Email: themallpractice@eircom.net.

Full-time associate position available in busy, modern, friendly practice. Excellent support staff, hygienist, OPG, computerised RSI/private to start July/August 2008. Navan, Co. Meath, one hour from Dublin. Please Tel: 087 699 4183.

Dentist required to replace associate, end April or before. Long-established, well-appointed, well-equipped practice. PRSI/private, trained friendly staff, hygienist, OPG, computerised. Tel. 01 837 3714, or Email: rcahill@cahilldental.net.

Experienced associate required for family practice South County Dublin. Part-time initially with a view to full-time. Tel: 01 280 9753 after 6.00pm, or Email: moroneydlk@imagine.ie.

Associate wanted to start in September 2008 in South Kerry. Tel: 087 983 1290.

A very busy general practice in Dublin requires an experienced dentist. Exceptional bonus scheme in place. New surgery and equipment. Full book. Please Email dubdentist@gmail.com for an immediate response.

Experienced associate required for a busy practice in Co. Kildare. Part-time with a view to full-time. Excellent support staff, hygienist, OPG, computerised. RSI/private. Please Tel: 087 962 9035, or Email: marlenesilva29@hotmail.com.

Dental surgeon required for very busy Midland practice. Good mix of private, GMS and PRSI patients requiring good quality dentistry. Full book assured. Partnership will be available for right candidate. Reply with CV to oralcentre@hotmail.com or to Box No. J208.001.

Locum to cover maternity leave or part-time associate required in two busy Kerry practices. Starting middle of May 2008. Replies to Box No. J208.002.

Locum dentist Lucan, June 30 to August 15. Full book, four days per week, 50%, modern, fully supported, ethical practice. Hygienist. Fluent English required. Tel: 01 628 3135/624 1124.

Full-time locum position with a view to associateship, if interested, from August 2008 to January 2009, to cover maternity leave. Full-time associate position available after this term. Friendly, modern RSI/private practice. Busy, excellent staff, hygienist, OPG, computerised. Dublin one hour. Tel: 087 935 9649.

Dental nurse required for thriving/progressive Dublin City Centre practice. Excellent terms on offer for the right candidate. Please call Michael, Tel: 086 805 1152.

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Co. Meath practice seeks periodontist. Three implant brands supported and superb, accredited staff support. Existing referral base and large catchment. All possible assistance given in getting set up. Tel: 086 8157 705 evenings and weekends.

Qualified DSA to work approximately 30 hours per week. Excellent salary with fully computerised modern surgery. For further details call Sara, Tel: 01 493 6909.

Dental nurse required for thriving Kildare practice. Approximately 30 hours per week. Salary dependant on experience. For further details, please contact Marlene, Tel: 087 962 9035.

Mayo. Hygienist required from February for five-surgery modern busy dental practice. Four days available with excellent working conditions to replace departing hygienist of four years. 50% remuneration. Tel: 086 600 1719.

Experienced dental hygienist required part-time for a busy, modern, dental practice in Galway city. Fully-equipped and computerised, full assistance provided (digital x-ray, OPG, Cavitron, etc.) Please Tel: 087 803 4514, or Email CV to: lisatuohy2006@yahoo.ie.

Hygienist required part-time for modern, computerised, friendly practice, South City Centre Dublin. Experience preferred. Flexible hours. Email: portobellodental@eircom.net.

Dental hygienist seeking employment in Limerick/Ennis area. Full-/part-time. Maternity/holiday leave. Tel: 087 325 7825.

EQUIPMENT FOR SALE

Equipment from four-surgery practice for sale, to include chairs, lights, delivery units, scalers, light machines, autoclave. Dublin area. Tel: 086 823 3747

PRACTICES FOR SALE/TO LET

Large consulting rooms to let sharing with a medical centre in excellent location of Fitzwilliam Street, Dublin 2. Huge demand for dental practice in this business area. For further information, please contact Dr John Ryan, Tel: 087 265 6811.

For sale, Dublin. New innovative opportunity. Progressive, modern two-surgery practice. Fully computerised. Excellent equipment. Superb support. Busy, no MC. Plentiful free parking. Large expansion possibilities. Very low rent. Flexible options leasehold/franchise. Suitable for dynamic personality. Tel: 086 260 8551 or 086 269 1647.

Cork City Centre, Bridge St. Long-established, newly refurbished practice, two surgeries, OPG, camera, hygienist, etc. Unique opportunity exists to rent my practice with a view to buy. Realistic rent/purchase price. Please contact Dr Maurice Leahy, Tel: 087 987 5143 (9.00am-5.00pm), or Email: smile@riversidedentalcare.ie.

New premises at 'The Market Yard', Enfield, Co. Meath to rent – suitable as dentist's surgery. Generous car-parking. Can be altered internally to suit. Fast growing commuter town with motorway and main rail access. Good potential. Contact Pauline, Tel: 01 628 9793.

To let. Amazing opportunity – fully equipped top class dental practice. Great location – 50 minutes Dublin Airport. Full marketing support, start-up package included. Potential to expand three to four surgeries short term. Buy-out option possible. Luxurious living accommodation on site. Tel: 086 807 5273.

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For sale/to let, Sligo. Superb location on busy main street. High profile retail complexes nearby – good passing trade. Ample parking available. Single surgery, potential to expand. Very low rent. Medical card low. Good growth potential. Excellent profit margins. Dentist retiring. Property – flexible options. Tel: 086 807 5273.

For sale/to let, Dublin South. Superb location, city centre – two miles. Single-handed. Expansion plans available. Modern equipment. No MC. Almost fully private. Leasehold. Huge growth potential. Figures and profits for practice excellent. Tel: 086 807 5273.

For sale/to let, South Dublin. Excellent location near Dublin City. Superb, well established very busy high profile practice. Two surgeries. Potential to expand – other healthcare facilities a possibility. Freehold option. Large area space – 2,500 sq ft. Excellent figures. Principals relocating. Tel: 086 807 5273.

For sale/to let, Dublin City Centre. Excellent location – close to city. Large area space – 1,000 sq ft. Huge growth potential. Major development immediate vicinity. Long established thriving general practice. Two surgeries. Extremely good figures and profits. Tel: 086 807 5273.

New purpose-built medical centre for sale/rent, Main Street, Kilcolgan, Co. Galway – main Galway/Ennis Road. Thriving catchment area on shores of Galway Bay. Accommodation for two-surgery practice on ground floor (1050 sq ft). Car park. Galway 13km. Tel: 086 686 2039, or 091 796044.

Celbridge. Newly refurbished period property set out in modern office suites, in excellent trading location. All units have own front door access and share private secure parking for c. 14 cars. Contact Coonans, Tel: 01 628 8400, Web: www.coonan.com.

For sale, Athlone. Three surgeries – two-person practice. Next door to new town centre. Plentiful parking. Very busy, long established. Well equipped, excellent staff, fully computerised. OPG, intra-oral cameras, implants. Good figures. Property – flexible options. Tel: 086 807 5273.

For sale, North East. Excellent practice – two surgeries. Large area space. Property – flexible options. Good growth potential. Principal can assist transition. Realistic price. Tel: 086 807 5273.

For sale, South Dublin. Two surgeries – real WOW factor. Busy, long established, 'walk-in-able'. Great location. Excellent equipment – fully computerised. Ability to expand. Great support system. Ideal circumstances for vibrant dynamic practitioner. Tel: 086 807 5273.

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For more information or to book please call now on 0800 169 9934.

Seminar Programme:

6.30pm
Registration, buffet and refreshments

7.15pm
Presentation

8.15pm
Dessert and refreshments

9.00pm
Evening closes

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DIARY OF EVENTS

April 2008

Irish Endodontic Society Meeting
April 3 Dublin Dental Hospital, 7.30pm
Speaker to be confirmed.

Metropolitan Branch, IDA – Golf Outing
April 6 Woodenbridge Golf Club
Breakfast in Woodenbridge Hotel at 9.30am, and golf from 10.30am. Timesheet to be organised at breakfast.

Orofacial Regulation Therapy Seminar
April 14 and 15 Dublin Dental School and Hospital
For full programme and venue details visit www.dentalscience.tcd.ie.

Royal Society of Medicine Conference
April 19 and May 17 Royal Society of Medicine, Wimpole Street, London
For further information and assistance please contact Chloe Waite, Tel: 0044 20 7290 3844, Email: chloe.waite@rsm.ac.uk.

IDA Annual Scientific Conference 2008 – Operation Wexford
April 23-26 New White's Hotel, Wexford Town
For further information, contact Elaine Hughes Tel: 01 295 0072, or visit www.dentist.ie.

May 2008

30th Asia Pacific Dental Congress – 'The Power of Multi-Disciplinary Approach for Clinical Excellence'
May 6-10 Bangkok Convention Center at Central World, Bangkok, Thailand

Annual Scientific Meeting of the Irish Society of Dentistry for Children (ISDC) 2008
May 9 Rochestown Park Hotel, Cork
The topic is early childhood caries and speakers include Professor Svante Twetman, Denmark. For further information contact crowleyevelyn @eircom.net.

Midland Post Graduate Medical and Dental Golf Society – Golf Outing
May 14 Esker Hills Golf Club, Ballykilmurray, Tullamore
All dentists in the country are welcome. To reserve a time contact Esker Hills or Email: kortho@oceanfree.net.

Joint Annual Conference of the Oral Health Promotion Research Group UK and the Irish Link
May 15 and 16 Croke Park Conference Centre, Dublin
Topic is 'Partnership Working'. For further information contact Mary Carr, Email: mary.carr@maile.hse.ie.

FT108 – Future Trends in Implantology, International Dental Conference
May 15-17 InterContinental Hotel, Berlin, Germany
For further information on this conference visit www.paragon-conventions.com/fti08.

Dublin Dental School and Hospital Alumni Association Musical Evening – 'Dentists and friends playing to dentists and friends'
May 16 Dublin Dental School and Hospital
Musical entertainment will be provided by Drs Declan Corcoran, Sean Malone, Mick Ryan and others. The programme will start with a musical flavour followed by wine and finger food, chat and craic. The evening will finish with another musical interval. For further information contact agnes.hagan@dental.tcd.ie.

First World Health Professions Conference on Regulation (WHPCR) – The Role and Future of Health Professions Regulation
May 17 and 18 Centre International de Confence de Gene (CICG), Geneva, Switzerland
Hosted by the World Health Professions Alliance in co-operation with the World Confederation for Physical Therapy, the Conference on Regulation will bring together leaders in health professions regulation to discuss: 1. Different models of health professional regulation; 2. Regulatory body governance and performance; and, 3. Trade in services and implications for regulation. For more details, visit the website – www.whpa.org/events.htm.

The Lyttle Cup, Irish Dental Association Golf Society
May 23 Royal County Down Golf Club

September 2008

The IDA Captains Prize – Irish Dental Association Golf Society
September 6 Carlow Golf Club

FDI Annual World Dental Congress
September 24-27 Stockholm, Sweden
The FDI Annual World Dental Congress, including the World Dental Parliament, the Scientific Programme and the World Dental Exhibition, will be held in Stockholm. For further information visit http://www.fdiworldental.org /microsites/Stockholm/congress1.html.

October 2008

Prague Dental Days
October 15-17 Prague
Since 1993, the Czech Dental Chamber has been organising Prague Dental Days (PDD), an international congress focused on dental issues. For further information visit www.dent.cz.

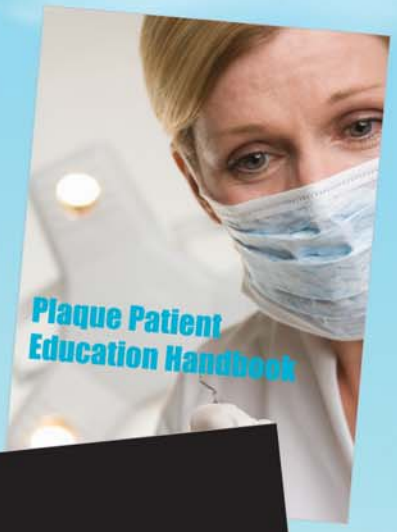
November 2008

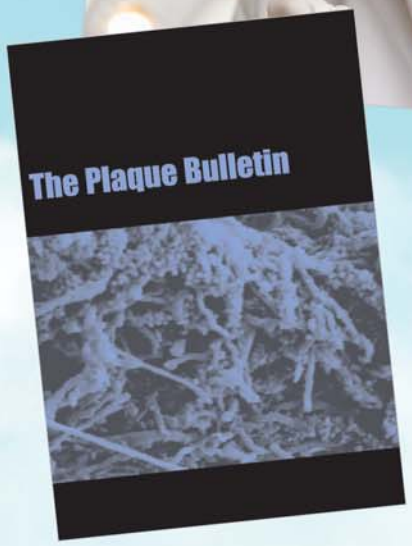
Inaugural Trans-Tasman Endodontic Conference
November 20-22 Hotel Grand Chancellor, Hobart, Tasmania, Australia
Inaugural Trans-Tasman Endodontic Conference – 'Endodontics into the next decade'. The key speakers are Professors Markus Haapasalo and Ove Peters, plus local Australian and New Zealand presenters. For further information and to register your interest, visit the website – www.ase2008.com.

December 2008

Irish Dental Association Golf Society – The Christmas Hamper
December 5 Royal Dublin Golf Club

Plaque. Get the low down.





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