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Ireland's Dental

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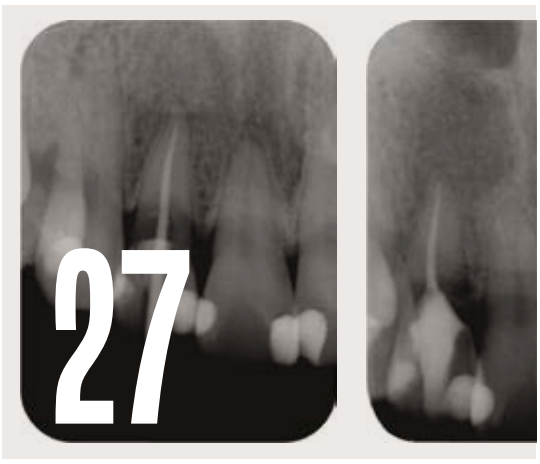

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BEECHVIEW
DENTAL CARE

Welcoming referrals in:

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Dr Jordi Marques Guasch

DDS,MSc

Implantologist and Oral Surgeon

GDC: 263032

Jordi graduated as a dentist at International University of Catalunya (UIC). He also completed a Master's Degree in Clinical Research and a three-year International Master's Degree in Oral Surgery and Implantology at the same institution. Since then, he has collaborated with several clinics in London, Spain, and recently Belfast. Jordi's clinical practice is in the field of implant dentistry. He has significant experience and expertise in the treatment of bone tissue regeneration, implant related surgical procedures, as well as soft tissue management. Jordi is a university professor and a clinical lecturer at UIC where he teaches only masters and postgraduate students from the Oral and Maxillofacial Surgery department. He regularly attends congresses, lectures, and conferences, on all aspects of implantology to maintain his knowledge in this field. Jordi's aim is to always make patients' oral surgery experiences as pleasant as possible. In his spare time, he enjoys practicing a variety of sports and travelling.

If you would like to discuss referring a patient to **Dr Marques,** please contact our friendly reception team on **028 9024 3107,** visit us at **cosmeticdentists-belfast.co.uk** or email **reception.beechview@portmandental.co.uk**

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It all adds up

Investing in the nation's oral health will in turn reap dividends for its systemic health

A "quick and easily implementable" solution to increasing the number of dentists in Ireland over the coming years is possible, according to Fine Gael's Colm Burke. Simply increase the number of places available to Irish students on dentistry courses at University College Cork and Trinity College Dublin, said the Teachta Dála for Cork-North Central in a release to the media in June.

While the new RCSI School of Dentistry is launching its community-based programme Bachelor of Dental Surgery programme this autumn (see this issue's cover story on page 17-20), a development welcomed by Burke, Irish student places at either college have not increased in 25 years. The figures he cites are stark; in 2023, there were 61 final year dentistry students in UCC and 46 dentistry in Trinity College Dublin. This year, 36 final year students in UCC and 21 in Trinity were from non- European Economic Area (EEA) countries. Half of the places were allocated to non-EEA students.

Because of the reliance on non-EEA students to cross-subsidise the funding of the dental schools, graduates from Irish dental schools have only made up about a third of those registering with the Dental Council for the last 15 years. If, argues Burke, additional funding was provided to increase the number of places allocated to Irish students, we would see more dentists working in the Irish system, making it easier for people to access dental services and, in turn, reduce waiting lists.

It might go some of the way to addressing Ireland's long-standing shortage of dentists. Department of Health's figures – published in the National Healthcare Statistics 2023 – estimate that the number of practicing dentists in Ireland for 2022 stood at 2,420. That equates to one dentist per 2,128 of the population, putting Ireland in the bottom quartile of OECD countries.

An Irish Dental Association survey found that nearly two-thirds of dental practices who tried to recruit dentists in the twelve months to May 2023 could not fill the vacancy. It means that a quarter of dentists are currently not able to take on new private adult patients, while 59% said the shortage of dental staff is impacting patient access and treatment in their practice.

The number of dentists with a Dental Treatment Service Scheme contract in 2024 was 810, down from 1,452 in 2012; a decrease of 642 in 12 years. The number of fully public dentists employed by the HSE to deliver school dental screening has decreased by 30 since 2012. This is despite a backlog in the number of children awaiting their first appointment. Just over 104,000 were seen by a dentist under the school dental screening service in 2023, a drop of 31,000 on 2017.

Burke called for an increase in the number of places on dentistry courses and in the funding that would be needed for these places. His bis for an investment in the nation's oral health is mirrored by the Irish Dental Association's plea for extra funding to realise the full potential of the National Oral Health Policy, Smile agus Sláinte, and to ensure that a successor to the Dental Treatment Service Scheme for medical card patients is fit for purpose. The new Minister for Health, Jennifer Carroll MacNeill, has expressed a commitment to reform of the oral healthcare system. But the IDA said the necessary funding will need to be "significant".

As we report on page 8, there has been a €800 million reduction in state spending on dental care for Pay Related Social Insurance (PRSI) and Medical Card patients between 2009 and 2023. The IDA says that the deficit in funding "represents a lost decade in dental care, which has compounded negative health outcomes for the poorest and most vulnerable in our society".

Dr Edward Zuckerberg (dentist and father of Mark) tells us (see p22-23) that dentists should be viewed as being as primary care partners, alongside doctors, in treating patients; ensuring their patients are in good oral health as a requisite for overall wellness. "We live in a world where most view dentistry as a siloed profession, separate from medicine," says Dr Zuckerberg, "and upgrading the world view of dentists as primary care specialists who are simply physicians who specialise in oral healthcare will also promote this paradigm shift in treatment philosophy."

Given the well-established links between oral health and systemic health, investing in the former will bring positive results for both and reduce the demand for treatment of systemic conditions.

Dr Paul O'Dwyer BDS MSc (Healthcare Management)

Hands up who has five minutes?

Please help further improve the already high quality care of dental treatment in Ireland

What makes a good decision?

Communication is the bedrock of good patient outcomes. From that initial meeting at the first clinical examination as a new patient, through to completing treatment – the better the communication, the higher the quality of trust. Trust is built on consent, respect, dignity and understanding. The patient's capacity for decisions is also central to good communication and trust.

The principle of informed consent is usually considered to be permission granted in full knowledge of possible consequences of treatment with knowledge of the potential risks and benefits. Patient dignity usually refers to treating patients with respect, valuing their individual needs and preferences, and ensuring they feel valued and in control during their care. Capacity is considered to be the patient's ability to understand when a decision is being made and the nature and consequences of that decision in the context of the available choices.

The dental surgery

In the busy dental practice, the everyday aspects/tenets of communication, consent, dignity and capacity can be seen during every single patient interaction.

As dentists, we provide interventive treatments, where our patients typically have dental instruments in their mouths – significantly impeding their ability to speak/verbalise their wishes. During training many of us may have learned to say: "Raise your hand if you wish me to stop". While this is helpful, there is currently no prescribed, verified, authenticated standard or evidenced informed guidance on this non-verbal system.

The research

I am undertaking research as part of a doctoral programme (PhD) at the School of Population Health at the Royal College of Surgeons in Ireland (RCSI). This self-funded and independent research is investigating a simple rudimentary hand-signalling system which will assist both patient and dentist with this missing piece of the 'communication-consent-dignity' challenge.

How does could this affect my practice and my patients?

Good communication in healthcare is enshrined in policy (Sláintecare, 2018) and is also found in the Irish Dental Council's Code of Ethics: *4.2 Your patient is entitled to refuse treatment. If your patient refuses treatment, you must record your advice and the patient's refusal to undergo the treatment in the patient's records.*

Elsewhere, the literature also tells us that impaired communication can erode or impair trust, consent, shared decision making and adversely impact on patient dignity and clinical outcomes (Burt et al., 2014). The dental surgery is at a higher risk of this due to a patient's inability to answer verbally when instruments (e.g. handpieces) or appliances (e.g. rubber dam) are in place.

Barriers to effective communication are a leading cause of litigation. Negligence cases are less related to the clinical quality of care but rather triggered by inadequate communication (Hegan, 2003).

A solution?

A proposed hand-signalling system with clear actions (e.g. Stop, Proceed, Query, Suction, Rinse) may provide a solution. A short five-minute survey gathering dentists' views on this important research is accessed via the QR code below or directly by the survey monkey link. We need to know what you think!

A research-based, evidence-informed system of this nature could support consent, dignity and communication during operative procedures. It could also assist with demonstrably showing patient capacity. It could therefore support clinical records, clearly showing a pathway for patients' decision making and consent – and thereby protecting their dignity. Such a facility would also support the dentist should any issues, queries or complaints arise after treatment.

This is an anonymous survey (there is no personal data collected – e.g. we are not collecting names, addresses, emails or phone numbers!). It takes just five minutes to complete – less time that it took to read this column! Please help to bring this research to fruition – and further improve the already high quality care of dental treatment in Ireland. Thank you! You can use the QR code - open your camera on your mobile phone, then point your camera at the code, and it will automatically recognize the code and bring you to a website link, which you can then tap to open. Alternatively, you can follow the link below. Thank you for your help. If you have any queries or wish to learn more, please contact me at: paulodwyer@rcsi.com

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IDA calls for extra funding

Bid follows a €800 million cut in spending on dental care over past decade

THE Irish Dental Association (IDA) is calling for a significant increase in oral health funding to support oral health reforms initiated by the Department of Health.

Its demand follows a €800 million cut in state spending on dental care for PRSI and Medical Card patients between 2009 and 2023. The deficit in funding represents a "lost decade in dental care, which has compounded negative health outcomes for the poorest and most vulnerable in our society", said the IDA.

In addition, 104,000 eligible schoolchildren in Ireland were denied dental screening appointments by the HSE dental service in 2023 because of a shortage of public-only dentists employed by the HSE.

Ireland's new Minister for Health, Jennifer Carroll MacNeill, has expressed a commitment to reform of the oral healthcare system.

But the IDA believes that significant extra funding is needed to realise the full potential of the National Oral Health Policy, Smile agus Sláinte, and to ensure that a successor to the Dental Treatment Service Scheme for medical card patients is fit for purpose.

Dr Will Rymer, President of the IDA, said: "Oral health is a vital indicator of the overall health and wellbeing of the general population. We are calling on the government to fully fund oral health services to make up for a lost decade in dental care, representing a running deficit of €800 million in investment.

"The failure of consecutive governments to fully fund oral healthcare services has only increased the outstanding burden of treatment needed across the country."

NI minister confirms dental investment

DETAILS of a £7m investment in Northern Ireland's general dental services (GDS) and an expansion of the Happy Smiles programme have been outlined by Mike Nesbitt, Northern Ireland's Health Minister.

The investment provides funding for:

- Continuation of the Enhanced Child Examination Scheme, which provides children aged up to 10 not been registered with a dentist with an examination, oral health advice and age-specific fluoride application to teeth to assist with preventing dental decay. From its reintroduction in June 2024 to April 2025, more than 37,000 children have been seen under the scheme.
- The continuation of 30% enhancement to fees paid to dentists for Health Service fillings, extractions and root canal treatment for 2025/26, to support public access to priority treatments.
- The allocation of £1.6m to provide additional support to dental practitioners who continue to provide Health Service dental care for their patients.

The Dental Access Scheme will also continue to provide access for unregistered patients with an urgent or pressing oral health need. Since began on 1 August last year, more than 18,000 high-need patients have received treatment.

Happy Smiles was launched in 2016, with the aim of improving the oral health of nursery school children in the 20% most deprived areas in Northern Ireland. The programme is being expanded to include Primary 1, 2 and 3 schoolchildren in the 20% most deprived wards.

Registration lowest in a generation

THE British Dental Association (BDA) Northern Ireland has warned that the recovery in NHS dental services has stalled and is putting dental care out of reach.

Registration rates among adults and children have also fallen to the lowest level in a generation.

Family Practitioner Services General Dental Statistics for Northern Ireland 2024/25 show the number of adult treatment claims submitted and paid is down on last year, while the number of patients seen remain down by a fifth on pre-Covid norms.

The number of Health Service practices in Northern Ireland has fallen steadily over the last decade.

But in 2023/24, the last year for which comparable figures exist, Northern Ireland dentists filled the largest number of teeth per 100,000 population of any UK nation.

Ciara Gallagher, Chair of the BDA's Northern Ireland Dental Practice Committee, said: "It's clear that a sticking-plaster approach rather than the radical overhaul needed is putting Health Service dentistry out of reach for a sizeable portion of our population.

"Fewer patients are getting the care they need, vast numbers are no longer on even our books, and many practices are moving away from a broken system.

"These figures must be responded to with the utmost urgency: without meaningful reform and sustainable funding, this service won't have a future."

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NI dental nurse training updated

Planned new qualifications are aimed at better meeting needs of employers

A SECTORAL Partnership (SP) for dental nursing is working on the development of initial dental nurse training across Northern Ireland.

The SP comprises practitioner and employer representatives from British Dental Association (BDA), further education colleges, the Council for the Curriculum, Examinations and Assessment (CCEA), the Department for the Economy, the Northern Ireland Medical and Dental Training Agency (NIMDTA,) and Health and Social Care Sectoral Partnerships NI.

It has been reviewing a new National Examining Board for Dental Nurses (NEBDN) qualification and has begun work on a new City & Guilds qualification ahead of its introduction in September.

"A key function of the SP is to ensure these new qualifications meet the needs of employers," said a BDA spokesperson. "A second important outcome we are anticipating is recognition of the NEBDN qualification under the Northern Ireland Apprenticeship scheme for the first time.

"Until now, only the City & Guilds qualification has been CCEA accredited and included on the apprenticeships framework, with the result that practices with nurses undertaking the NEBDN qualification do not benefit from fees being paid for under the apprenticeship scheme. This looks set to change.

"While it is important to stress that the process is not yet complete, we expect the Department for the Economy will move to add the NEBDN qualification to the apprenticeships framework."

Dentists to 'shrink NHS element'

DENTISTS will have to reduce the NHS element of their practice because of the increase in National Insurance contributions, the Chair of the Northern Ireland Dental Practice Committee has warned.

Dr Ciara Gallagher said patients "will end up doing without, healthcare inequalities will widen, and patients will suffer" as a result.

In recent years, many practices have found that the cost of delivering care surpasses funding provided by the health department; 90% of dental practices in Northern Ireland are not accepting new adult patients.

"We're now adding another cost to that, and that is going to make practices unviable," said Dr Gallagher. "The difficulty that dentists are going to face is they will have to shrink the NHS element of their practices if they are to keep the lights on, and they will have to increase the private element.

"And that is going to be patients having to do without care, so the effect in dentistry is going to be rapid, and it is going to be even more difficult for patients to access NHS dental care. The vast majority of people aren't in a position to pay for private care, and therefore they will end up doing without and healthcare inequalities will widen, and patients will suffer."

> "THE VAST MAJORITY OF PEOPLE AREN'T IN A POSITION TO PAY FOR PRIVATE CARE, AND THEREFORE THEY WILL END UP DOING WITHOUT AND HEALTHCARE INEQUALITIES WILL WIDEN, AND PATIENTS WILL SUFFER"

BOS honorary patron awarded OBE

ROZ MCMULLAN, Honorary Patron of the British Orthodontic Society and immediate past chair of the British Dental Association's Northern Ireland Council, has been awarded an OBE in the King's Birthday Honours List.

The award was for services to mental health and wellbeing in the dentistry profession in Northern Ireland.

A retired consultant orthodontist, Roz has been involved in representative work most of her career.

She is chair of Probing Stress in Dentistry NI, which works to raise awareness of mental health wellbeing in the dental workforce, and co-chair of DISCREET NI, a working group focused on the mental health and wellbeing of healthcare professionals in Northern Ireland.

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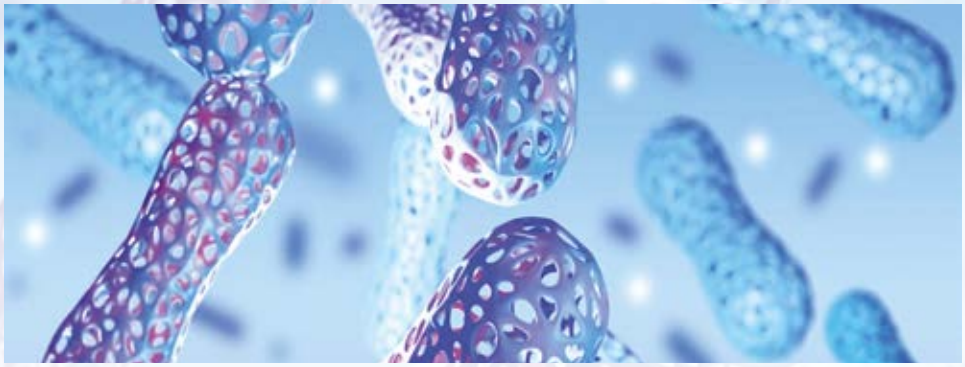

Less diverse oral microbiome linked to depression

Finding could lead to the development of new biomarkers or treatments for mood disorders

A LOWER diversity of microbes in the mouth is associated with depression, a study[1] published in the journal *BMC Oral Health* has found.

The mouth is home to between 500 billion and one trillion bacteria – the second-largest community of microorganisms in our bodies, after the gut. A growing number of studies point to the connection between the oral microbiome and overall health, from diabetes to dementia, with the relationship thought to be driven by inflammation and disruptions to the immune system.

The researchers used data from more than 15,000 US adults aged 18 and older collected between 2009 and 2012 and compared questionnaires measuring symptoms of depression with saliva samples. Gene sequencing was used to identify the microbes in the saliva and measure the diversity of the oral microbiome.

The researchers found that people with less diversity in their oral microbiomes were more likely to have symptoms of depression.

Additional analyses showed that smoking, drinking and dental care – all of which can change the makeup of bacteria in the mouth – influenced the relationship between the oral microbiome and depression.

"Having a better understanding of the relationship between the oral microbiome and depression could not only help us learn about the mechanisms underlying depression but could contribute to the development of new biomarkers or treatments for mood disorders," said Dr Bei Wu, vice-dean for research at NYU Rory Meyers College of Nursing and the senior author of the study.

However, based on this study, it is not clear whether the diversity of microbes in the mouth influences depression or if depression leads to changes in the oral microbiome – or if there's a bidirectional relationship between the two. "We need more research to understand the direction and underlying pathways of this relationship," said Dr Wu.

She added: "This work is part of a broader effort to understand how the oral microbiome influences not only mental health, but also cognitive decline and the onset of dementia."

[1] *bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-025-06274-x*

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Rosconnor relocates

ROSCONNOR Specialist Dentistry, part of the PortmanDentex group, has relocated to a new, purpose-built building designed to enhance patient care and offer cutting-edge dental services.

The move marks a milestone for Rosconnor as it celebrates its 25th anniversary and becomes the first practice to unveil the new PortmanDentex branding since the two companies merged in 2023.

An open evening took place in May at the new site – 1 Waterside Centre, Glendermott Road, Derry – where clinicians enjoyed a tour and reception to celebrate the new practice and unveil the new brand.

The relocation enables the practice team to see more patients on a day-to-day basis, expand its services, and offer specialist treatments. It accepts referrals for both private and NHS dentistry and provides services in dental implants, restorative dentistry, oral and maxillofacial surgery, prosthodontics, periodontics and endodontics.

"We are incredibly excited about the new and improved practice," said Mandy Reid, practice manager. "Our new facility is fitted with state-of-the-art equipment and designed with our patients in mind, ensuring that we offer them the very best experience and care."

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Exercise and omega-3 'reduces periodontitis'

PHYSICAL exercise combined with omega-3 supplements considerably improves the immune response and reduces the severity of chronic apical periodontitis, according to a study[1] published in the journal *Scientific Reports*.

The combination of the two limited bacterial progression, reduced bone tissue loss, regulated the release of pro-inflammatory cytokines and stimulated the activity of fibroblasts, the cells that create and maintain tissue.

The researchers induced apical periodontitis in 30 rats and divided them into three groups. The first group received no intervention. The second and third groups underwent a 30-day swimming regimen. The third group also received dietary supplementation of omega-3, a polyunsaturated fatty acid known for its therapeutic effects on chronic inflammatory diseases.

The group that only swam had better outcomes than the untreated control group. However, omega-3 supplementation combined with physical exercise regulated the immune response and infection control even more.

"To know if the same would be true for humans, we'd need a clinical study with a significant number of patients," said Ana Paula Fernandes Ribeiro, one of the authors. "However, in addition to the many proven benefits of physical exercise and omega-3 consumption, this is yet another important piece of evidence."

[1] www.nature.com/articles/s41598-025-90029-9

DATES FOR YOUR DIARY

17-22 AUGUST
76th EDSA Summer Meeting
Royal College of Surgeons in Ireland
edsadublin2025.ie

20-22 AUGUST
ADEE Annual Meeting
Dublin Dental University Hospital
https://adee.org/annual-meetings/dublin-2025

2-3 OCTOBER
BDA CDS Group Conference
Assembly Buildings, Belfast
bda.org/cdsconference

3-4 OCTOBER
RCSI Faculty of Dentistry ASM
Royal College of Surgeons in Ireland, Dublin
asm.facultyofdentistry.ie

Note: Where possible this list includes rescheduled events, but some dates may still be subject to change.

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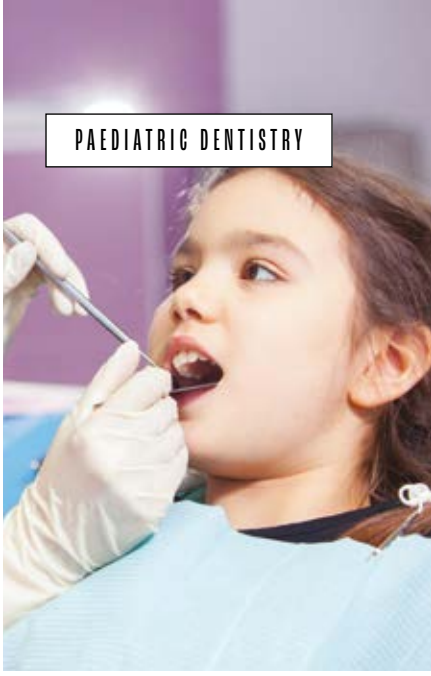
TACKLING OBESITY IN CHILDREN

WORDS
JESSICA LARGE

How dentists could help improve young people's health



As a specialty registrar in paediatric dentistry, I have seen first-hand the pain children experience because of poor oral health. Tooth decay happens when teeth are damaged by acids produced by oral bacteria breaking down sugar from foods and drinks and, although it is largely preventable, it is the most common reason for hospital admission in children between the ages of five and nine in England[1].

Tooth decay in children is also linked to obesity. Childhood obesity increases the risk of developing other diseases throughout childhood and into adulthood, including diabetes, high blood pressure and non-alcoholic fatty liver disease.

My research, conducted with colleagues at Loughborough University, explores how acceptable and feasible it is for dental teams to offer weight checks and support, such as referral to weight-loss programmes, to patients during routine appointments.

In my job as a paediatric dentist, I discuss weight and health with families and offer referral to local healthy lifestyle services.

The World Health Organization estimates that 43% of children have decay worldwide[2] and 20% of children aged 5-19 years are overweight or living with obesity[3].

In England, 29.3% of five-year-olds have tooth decay[4] and 21.3% of four and five year olds are overweight or living with obesity[5].

A diet high in sugary foods and drinks increases the risk of developing both conditions and evidence suggests that children who are overweight or living with obesity are more likely to have tooth decay[6].

Mouth disease is also linked to disease in other parts of the body. Gum disease, for example, is an infection of the tissues that support teeth, which has links with type 2 diabetes[7]. When one disease is poorly controlled, it can make the other worse. The number of children with type 2 diabetes is increasing[8], with excess weight increasing the risk of developing this condition.

Given the links between diet, tooth decay, obesity and type 2 diabetes, as well as other diseases that can develop when living with obesity, dental teams may be ideal professionals to tackle both tooth decay and obesity.

> "WHEN ONE DISEASE IS POORLY CONTROLLED, IT CAN MAKE THE OTHER WORSE"

It can be difficult to see an NHS dentist in the UK, but NHS dental teams do see millions of children every year and already advise families on reducing sugary foods and drinks in the diet to reduce the risk of tooth decay.

Dental teams taking body measurements is not commonplace, but it is not new. Height and weight measurements to calculate body mass index (BMI), a measure of body fat, are already collected by some dental teams. These measurements are helpful when prescribing medication and for planning dental treatment for children who need a general anaesthetic or sedation.

Some hospital dental teams, such as in Edinburgh and Dundee in Scotland, also offer weight and height checks for children and young people as part of routine appointments.

The child's weight is discussed with the child's parent or carer in a sensitive way and families are offered referral to a local service to support healthy lifestyle changes.

This opportunity to support a child with their oral health as well as weight aligns with the NHS initiative, Making Every Contact Count[9]. This approach calls on all health care professionals to take every opportunity within their appointments with patients to help improve patient health.

Children living in more deprived areas of the UK are at least twice as likely to be living with overweight and obesity. They are also three times as likely to have tooth decay.

The NHS aims to reduce these inequalities among children and has chosen oral health and diabetes[10] as two key areas to improve care for children and young people. The public has shown support for dental teams to talk about weight at dental visits and offer guidance to lose weight and improve health when done in a supportive way.

Research published in 2024[11], found that more than 80% of the public supported weight measurements being taken by dental teams and a discussion of weight at dental appointments. Most of the studies in this review came from the US. A UK-based survey[12] asked parents and carers if they would feel comfortable with the weight and height of their child(ren) being taken during a dental appointment in a dental practice. The survey found 58% of parents and carers would feel comfortable and a further 12% might feel comfortable with this approach.

This was very similar to how adults completing the survey felt about having their own height and weight measured during a dental appointment, with 60% reporting they would feel comfortable and a further 10% saying they may feel comfortable.

Discussing weight can feel uneasy and dental teams say they worry they will upset patients if they talk about weight. Some studies have found dental teams are also concerned they do not have enough time to talk about weight and that they have not had training on how to do this.

However, studies[13] have found that when weight checks and support are offered to families by trained dental teams, help is well received and lack of time is rarely a problem.

Dental decay and obesity are preventable in many cases. Both conditions can continue into adulthood, with the risk of developing other health problems.

Research shows that dental teams are willing to provide support and that children and their families are open to receiving help for obesity. Dental teams do have an important role to play, along with GPs and allied healthcare professionals, in tackling obesity in children as well as tooth decay.

Jessica Large is a Doctoral Researcher at the Centre for Lifestyle Medicine and Behaviour (CLiMB), Loughborough University.
This article was first published by* The Conversation*: theconversation.com/how-dentists-could-help-tackle-obesity-in-children-252258 (see article for references).

School students Alexandra Fabian, of Colaiste Pobail Setanta College, and Sofia el Hafidi, of the International School Michel Lucius, with Professor Albert Leung and Senior Lecturer Isabel Olegário at RCSI's Transition Year MiniHealthSciences event

MAKING HISTORY

RCSI's Bachelor of Dental Surgery programme gets ready to welcome its first students

WORDS
PROFESSOR ALBERT LEUNG, HEAD OF THE RCSI SCHOOL OF DENTISTRY

From September, the first student cohort of the new RCSI School of Dentistry will make history as the first dental students in Ireland to be educated on a community-based programme. A major life milestone for the students, their first day also marks a seminal moment for the university and for dental education in Ireland.

Ours is the first new school of dentistry in Ireland since 1913 but, while our venture into dental education is exciting, it is not uncharted territory. Our predecessors operated an undergraduate dental school from 1878 to 1977, awarding the Licentiate in Dental Surgery (LDSRCSI) to approximately 1,600 dentists. Today, the Faculty of Dentistry, which is based at RCSI, has more than 5,000 Fellows, Members, Diplomates and Affiliates globally.

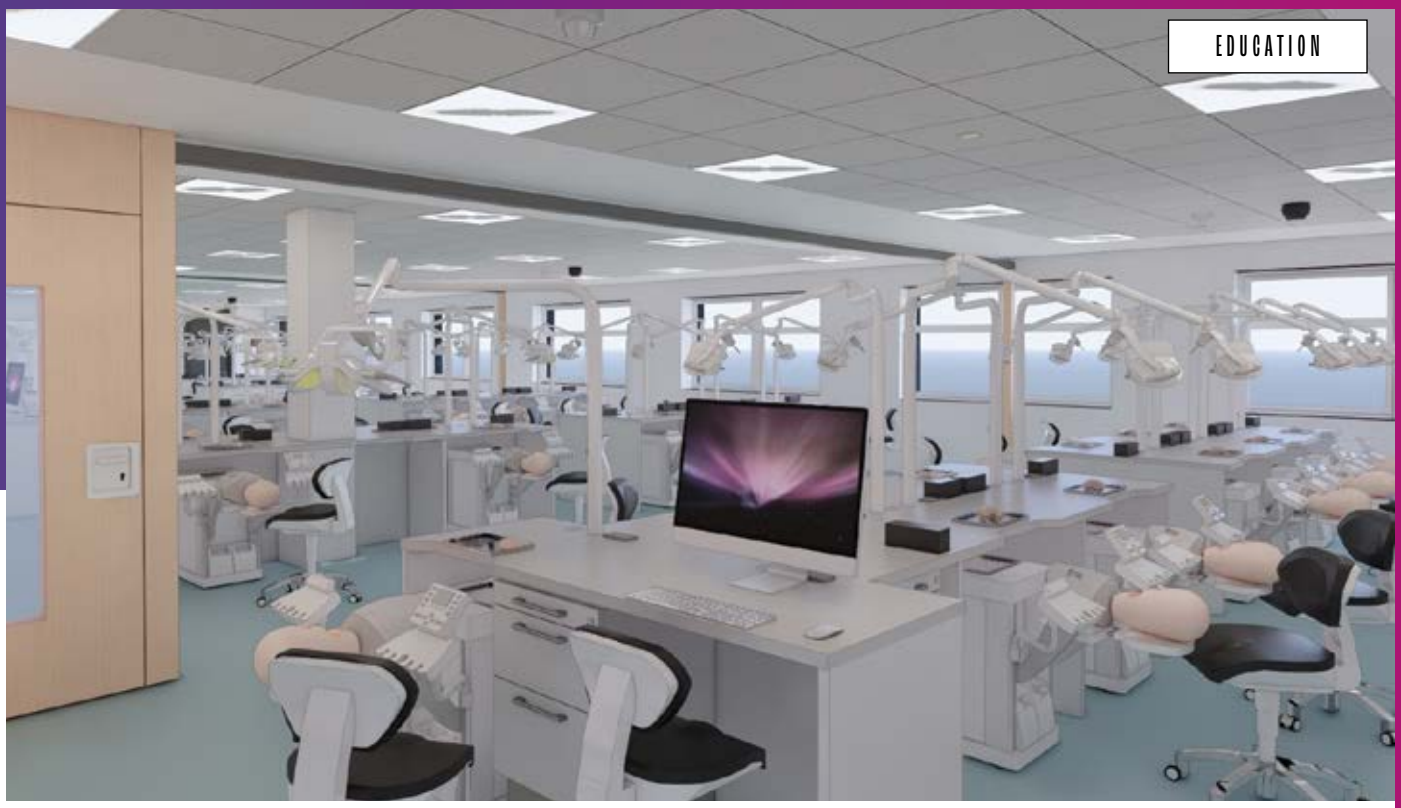
This heritage and RCSI's track-record of excellence in health sciences education provide strong foundations. Yet the task of establishing a new school and getting ready for our new students has been quite monumental.

Addressing a national challenge

Our challenge has been made all the easier because of the support of the RCSI leadership, colleagues across the university and our partners in dental education and higher education, each united in wanting to work together to address Ireland's chronic shortage of dentists.

The country has just 44 dentists per 100,000 people, a figure significantly lower than many European counterparts.

This scarcity impacts access to dental care, particularly in underserved communities. Recognising this, through the Higher Education Authority, the



Department of Higher Education is supporting RCSI to provide 20 new dentistry places annually for Irish students starting in 2025. We are also grateful to the Department of Health, the HSE, the Dental Council and the wider dental sector for their support.

Innovative curriculum development

Our new Bachelor of Dental Surgery (BDS) is a five-year degree programme in line with the European Union directives on dentistry training.

We are proud to be collaborating with the award-winning Peninsula Dental School at the University of Plymouth to implement a modern, community-based curriculum. This approach emphasises early patient contact and community engagement, reflecting the reality that a majority of dentists in Ireland practise in primary care settings.

Our five-year programme integrates clinical skills training with the acquisition of knowledge, skills and professional attributes. Dental students at RCSI will start clinical skills training in week two of their first year, facilitating the development of clinical and communication skills early in their education.

World-leading facilities

To support this innovative curriculum, RCSI has made significant investment in developing cutting-edge facilities. Construction is now complete on a €12 million Dental Education Centre in Sandyford, Dublin, which is ready for the students who will begin this September. The Centre, which is located very close to the Stillorgan Luas stop, features a simulation lab and a dental clinic with 12 dental chairs.

Students will spend most of their first two years at this Centre, as well as taking the Luas to St Stephen's Green to meet their peers from RCSI's other health sciences programmes. Some of their anatomy education will take place side-by-side with RCSI's medical students, and they'll participate in the interprofessional education that is so central to RCSI's education philosophy.

In their third year, they will move to RCSI's second Dental Education Centre at Connolly Hospital, Blanchardstown. Scheduled to open in 2027, this 4,000m^2 facility will house 40 dental chairs, intra-oral x-ray suites and other essential clinical infrastructure.

> "CONSTRUCTION IS NOW COMPLETE ON A €12 MILLION DENTAL EDUCATION CENTRE IN SANDYFORD, DUBLIN, WHICH IS READY FOR THE STUDENTS THAT WILL BEGIN THIS SEPTEMBER"

To ensure our students benefit from a state-of-the-art learning environment, we are working with Henry Schein Ireland to equip the Sandyford facility. This includes dental chairs and supporting infrastructure and a simulation unit with 55 phantom heads, ensuring students train with the latest technology.

A growing Faculty team and opportunities for dental educators

I am very proud to have been joined on the School of Dentistry team by a group of really outstanding academics and researchers. Professor Peter Cowan, an Adjunct Professor of Oral Surgery at NYU, specialist oral surgeon, a former Dean and CEO of the Faculty of Dentistry RCSI, with more than 40 years' experience in clinical practice, has joined us as Professor of Oral Surgery and Dental Anatomy.

Professor Osama Omer, former head of Restorative Dentistry at Trinity College Dublin, renowned for his expertise in rehabilitating head and neck cancer patients, is our Head of Restorative Dentistry and Clinical Director.

Above: CGI image of the €12 million Dental Education Centre in Sandyford, Dublin, which is nearing completion

Left: Professor Albert Leung pictured with the expanding School of Dentistry team

Dr Isabel Olegário, an award-winning teacher, researcher and scientist, is Senior Lecturer in Paediatric Dentistry in Primary Care Dentistry, and Dr Niamh Coffey, who also has an extensive research profile, is Senior Lecturer in Restorative and Primary Care Dentistry and will also head our Clinical Skills Programme.

Dr Genecy Calado de Melo, who holds a clinical post as a Senior Dental Surgeon, is Lecturer in Operative and Primary Care Dentistry and Dr Cathy Richards, a basic scientist and active researcher in difficult-to-treat cancers, has been appointed Lecturer in Dentistry.

Dr Richards moved from the Molecular Medicine department, RCSI, where she was a Senior Post-doctoral Researcher in Oncology. She is a basic scientist and active researcher in difficult-to-treat cancers.

Our team will be joined by a number of new academic colleagues during the summer, and we are also starting to recruit clinical lecturers or teaching practitioners – working dentists who would like to engage in teaching, perhaps a day or two a week. This is a wonderful way for dentists to use their expertise

Meet Professor Albert Leung

PROFESSOR Albert Leung is Professor of Dentistry and foundation Head of the new School of Dentistry at RCSI.

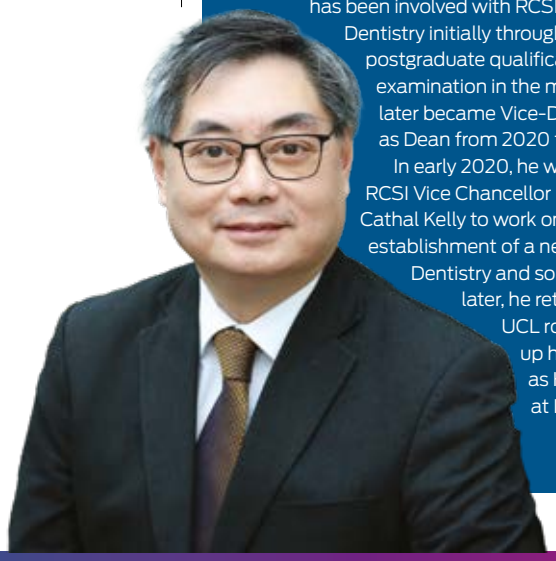
After qualifying in dentistry in 1985, Professor Leung worked in dental practice for a number of years before embarking on postgraduate education in dentistry. He took up a position as Lecturer at King's College London, where he progressed to Deputy Director, spending 15 years teaching primary care dentistry and in pedagogic research.

In 2013, he took up a role at the UCL, Eastman Dental Institute, where he was Principal Clinical Teaching Fellow, Deputy Programme Director, then Deputy Head of Department, Head of Department, Head of Continuing Professional Education and Programme Director of Restorative Dental Practice.

Professor Leung was awarded his Chair in 2017, when he became Professor of Dental Education. He was a recipient of the 2017 Association of Dental Education in Europe (ADEE) Excellence in Dental Education Mature Career Educator award. His main areas of research are in dental education and restorative dentistry.

Throughout his academic career, Professor Leung has been involved with RCSI's Faculty of Dentistry initially through gaining RCSI postgraduate qualifications by examination in the mid 1990s. He later became Vice-Dean, serving as Dean from 2020 to 2023.

In early 2020, he was asked by RCSI Vice Chancellor Professor Cathal Kelly to work on the establishment of a new School of Dentistry and some four years later, he retired from his UCL role and took up his current role as Head of School at RCSI.



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in a new way, to engage with the next generation of dentists, and to work with a passionate team of academics and clinical educators.

If you are interested, we would love to hear from you.

Promoting better oral health

Our new team has been warmly welcomed by colleagues across RCSI. The job of building a new School from the ground up has been a university-wide enterprise and the experience has shown the very best of RCSI's wonderful community of academics, researchers, clinicians and professional staff.

The university is mission-driven to improve human health and the entire RCSI community shares a commitment to the third UN Sustainable Development Goal, good health and wellbeing. Indeed, we have recently ranked number one in the world, out of more than 1,700 universities, for our impact on good health and wellbeing in the 2025 Times Higher Education Impact Rankings. This is the third time in five years we ranked number one, reflecting our university's dedication to human health. The School's new team of experts in oral surgery, paediatrics, restorative dentistry, and public health are committed to advancing oral health equity. We've written oral health promotion articles published by The Conversation and Dr Niamh Coffey has helped develop resources to improve dental care for individuals with cystic fibrosis, exemplifying their dedication to inclusive healthcare. We're determined to be positive advocates for better oral health, so we'll continue this work as the School opens and our team expands.

The final 100 metres

As the countdown begins to welcome our first group of students this September, a busy summer of preparation lies ahead. Final snagging works are underway at the new Sandyford Dental Education Centre, where clinics, simulation labs, and learning environments are being meticulously checked and commissioned. Faculty and technical teams are working closely with suppliers to install and calibrate state-of-the-art equipment, ensuring everything is in place for a seamless start.

From fine-tuning teaching timetables to conducting trial runs of simulation models, this final phase reflects the shared excitement and responsibility of launching a new era in Irish dental education.

RCSI SCHOOL of DENTISTRY

Connecting the classroom with the community

A CORNERSTONE of RCSI's BDS programme is the Community and Interprofessional Engagement Module, designed to cultivate healthcare professionals who combine clinical expertise with empathy, social awareness, and a deep commitment to community well-being.

In their first year, students work in small groups to interview representatives from local community organisations, building awareness of the social care services supporting vulnerable populations and the health challenges they face.

Their second year will give students the chance to collaborate with external organisations to design and deliver real-world projects focused on promoting healthy behaviours, ranging from oral hygiene education to lifestyle interventions targeting specific demographics.

Deepening their understanding of integrated care by engaging with other health disciplines is the focus of the third year, reflecting RCSI's commitment to fostering cross-sectoral teamwork.

In fourth year, students will complete a quality improvement project, synthesising their learning to enhance standards in dental practice. This module encourages students to look outward, to listen, learn, and contribute meaningfully, fostering a mindset that is shaping the future of dental education at RCSI.

RCSI is grateful to key community partners already contributing to the programme: HSE, Transit HUB Citywest (supporting asylum seekers and refugees), and RCSI's outreach schools. Future collaborations are also in development with organisations such as QUIT Smoking Services (HSE), RCSI's Equality, Diversity and Inclusion (EDI) partners, and other social support agencies.

These partnerships provide students with tangible platforms to understand and address health inequalities. From designing smoking cessation campaigns to working with schools on oral health promotion, this work allows students to connect their academic knowledge to community needs.

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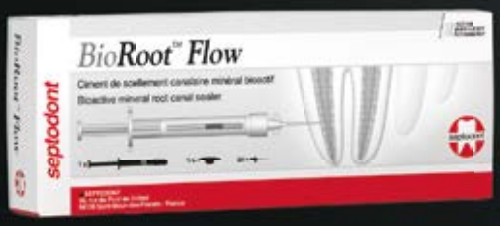

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WHY WON'T THEY DO WHAT I WANT? WHY DOESN'T IT WORK?

WORDS
ALUN K REES

Alun K Rees BDS is The Dental Business Coach. An experienced dental practice owner who changed career, he now works as a coach, consultant, trouble-shooter, analyst, speaker, writer and broadcaster. He brings the wisdom gained from his and others' successes to help his clients achieve the rewards their work and dedication deserve.

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FOR many years I have been working with teams and individuals, often trying to get them to get along together, to be more effective and to enjoy their days, weeks and months at work to the utmost. Why do some practices embrace change successfully? Why can't we recruit and retain one or two key team members? What makes a great day and how do we deal with those 'people dilemmas' which sabotage – and even sink – our attempts to progress our dental businesses?

My search took me to the deserts of Arizona. In 2007, I undertook training with the organisation founded by and based on the research of the late Kathy Kolbe in Phoenix. I was introduced to their system, Kolbe Analysis, which helped me to help clients to understand themselves and their attitude to change and to just about all aspects of work.

An individual's Kolbe Score reflects four qualities or 'Action Modes': Fact Find, Follow Through, Quick Start and Implementor. Understanding their score enables an individual to be more productive, less stressed and to have greater insight into their Instinctive Strengths.

Using a dedicated questionnaire the subject's resulting 'score' or Kolbe "A" Analysis reveals their Natural Strengths. There are no good or bad scores just different strengths which reflect a continuum from 1 to 10.

Fact Finder shows how one gathers and shares information. Insistent Fact Finders scoring between 7 and 10 need to get as many facts as possible, at the other end of the scale from 0 to 3 need an overview, they want the bottom line and no more. When it comes to sharing information 0 to 3 Simplify, 4 to 6 Explain and 7 to 10 Specify

Follow Through (Thru) reflects how we organise and design. Insistent Follow Thru's (7 to 10) have an instinct for designing systems and can put a timeline together for a project; they are great organisers. At the other end of the scale (0 to 3) have a far more adaptable system; they develop short cuts and can multitask. Those in the middle will have a 'tweakable' system which can detect discrepancies and adjust procedures.

Quick Start is involved with our attitude to risk and uncertainty. Change is a fact of everyday life, and we all have to deal with it. Understanding one's own instinctive way can give massive insight into our behaviour. 7s to 10s will be experimenters, risk takers. At the other end of the scale 1, 2, and 3 are those who minimise chaos; they stick with what works. Those in the middle – 4, 5 and 6 – to quote Kolbe, "do triage in the workplace, check things before trying them".

The fourth Strength is 'Implementor' and reflects how we handle space and tangibles. Higher scorers build things from scratch, constructing tangible solutions. They deal with hardware. At the other end are those who can believe it without seeing it, they picture how things could work. The ones in the middle can maintain, repair whilst actually building it, keeping things working.

It's fair to say that my introduction to Kolbe Analysis changed my personal and professional life. My Kolbe A analysis, 6:3:8:3, shows that I am an insistent Quick Start (8), I am happy to take risks, I like to experiment to see what will happen, I had my first business age 15, I ran a mobile disco when I was a student, started two cold squat practices in the space of 15 months and sold my business to change direction when I was just passed 50 years of age.

My 3s in Follow Through and Implementor suggest that I need others to put into place and maintain what I have started, so I always recruited people for 'detail'. Neither am I an instinctive 'working with my hands' dentist – it's no wonder that whilst I could be a good dental clinician I always felt frustrated with myself and took little joy in my clinical skills.

The 6 in Fact Find tells you that I will gather essential facts but not necessarily the fine details; I can and do accommodate and help others who are at the other ends of the continuum.

In an article of this length, I cannot give absolute chapter and verse on all the advantages of working using the Kolbe system but I can share the successes of those individuals and teams who have taken the time and energy to get involved. If you have team members who you think should be better than they are, seem to have the skills yet are not producing for you and everyone else, perhaps it is time to consider looking at something else.

Finally, I want to point out one frequent problem in smallish teams; those with similar scores tend to work the same way. This means that all strengths are not covered, there are gaps in your skill and attitude armamentarium that exams, training, CVs and personalities may not reveal. Perhaps now is the time to explore alternatives to your standard team building and recruitment tools.

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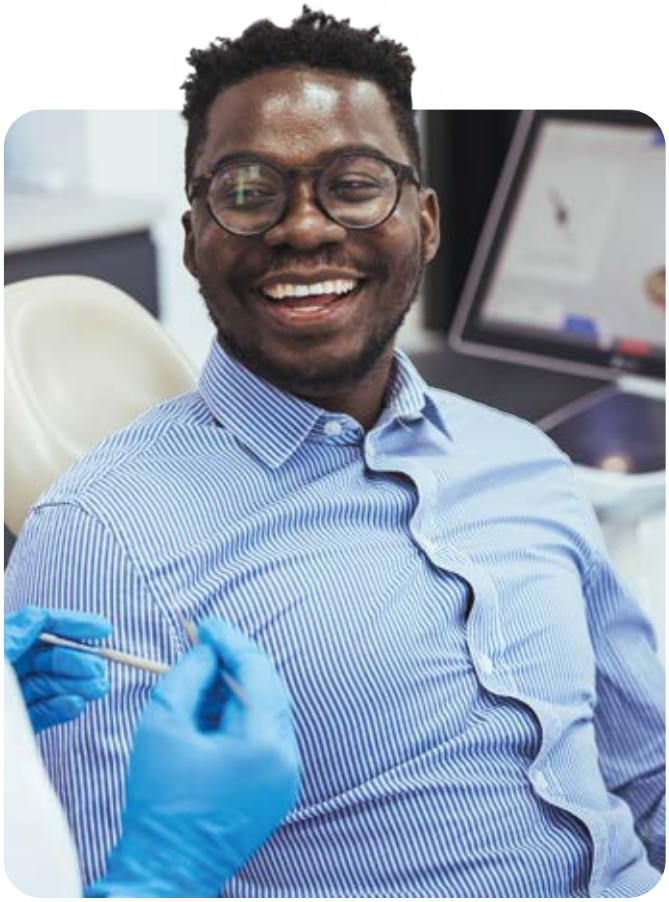

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Repair of an extensive external cervical resorption lesion using intentional replantation with crown rotation

Henry Fergus Duncan, Division of Restorative Dentistry and Periodontology, Trinity College Dublin*.

External cervical resorption (ECR) is a form of root resorption that results from the activation of osteoclasts causing loss of cementum and dentine[1]. The clinical presentation of ECR varies but is often asymptomatic, with the differential diagnosis, including internal resorption, cervical caries and root surface caries. The aetiology of ECR has been attributed to several factors, including trauma and orthodontic treatment; however, the exact cause is often unknown, and the disease pathogenesis remains poorly understood. It is therefore important to publish descriptive case reports and conduct further clinical studies to assess treatment options and highlight limitations.

Although ECR can occur in any type of tooth, the maxillary anterior teeth (incisor and canine) are most commonly affected[2]. Previously, ECR classifications were based on information from two-dimensional (2D) periapical and panoramic radiographs, which subsequently guided the treatment plan[3]. Although classification using 2D methods can be problematic, particularly for molars, they still play an important role in the preliminary treatment planning for ECR. Recently, cases of ECR with different aetiologies, including medications have been reported[4,5]. In addition, histopathological, cone-beam computed tomography (CBCT), micro-CT, nano-CT, and scanning electron microscopy have revealed different pathogenesis mechanisms[6-8].

The clinical application of CBCT in a three-dimensional (3D) classification was recently reported to play an important role in determining the subsequent treatment plan[9], and its use in addition to the conventional 2D classification was proposed. In 2018, the European Society of Endodontology published a position statement on ECR that summarised contemporary knowledge and provided recommendations for clinical practice[10]. In recent years, several cases of ECR have been reported, with lesions of various sizes at different stages of progression and successful management with the recommended treatment methods[11,12]. Intentional replantation, which is considered the most invasive treatment option for ECR, is a potential treatment strategy based on the degree of ECR. It provides a high probability of restoration of the destroyed tooth structure[13]. Multiple case reports detailing the treatment of ECR have shown the efficacy of endodontic and periodontal approaches alone or in combination[14-16].

Although there are only a few case reports of intentional replantation, some case reports are available demonstrating the efficacy of intentional replantation for ECR[17]. Intentional replantation should involve minimal damage to the periodontal ligament and ideally be combined with surgical extrusion and other procedures that enable future crown restoration and improve the predictability of the restorative treatment. In particular, hard tissue destruction due to advanced ECR on the palatal aspect of anterior teeth can be closely related to the long-term effects of dental restorations due to the nature of the constant tensile stress related to occlusal forces. Here, the management of a maxillary lateral incisor with a large ECR lesion is described. The lesion was treated by temporarily subjecting the tooth to orthodontic forces to minimise the damage to the periodontal ligament, extracting the tooth, removing the ECR under a dental operating microscope (DOM), and replantation of the crown after 180° rotation. This case report has been written according to Preferred Reporting Items for Case Reports in Endodontics (PRICE) 2020 guidelines[18]. The PRICE 2020 flowchart is shown in Figure 1. Informed consent has been obtained from the patient for publication as a case report of the process of treatment for this ECR lesion.

A 43-year-old non-smoking female was referred to our university hospital clinic by a private dental clinic for the management of an extensive ECR lesion. The patient complained of discomfort in the maxillary right lateral incisor and reported a history of a fall that happened 10 years ago. However, the patient had not paid particular attention at the time, as the patient was asymptomatic immediately after the trauma, and there was a lack of superficial damage. During the assessment of the initial trauma (10 years ago) at a private clinic, the affected tooth had undergone caries removal in the proximal and distal aspects of the tooth. Several years later, the patient was diagnosed with ECR at a private dental clinic. The discomfort at the affected tooth gradually increased, and the radiographic translucency of the ECR lesion became larger.

At the time of presentation, the patient was not on any medications and had no relevant general medical or family history. Furthermore, common causes of ECR, such as history of orthodontic treatment, parafunctional habit, or abnormal occlusal pattern, were not detected. Overall, oral hygiene was good, and plaque levels were well controlled. Bruxism or occlusal interference was not apparent. There was no pathological tooth mobility of either the affected or its adjacent teeth. No tenderness was noted on palpation, and slight pain was reported on vertical percussion. Pulp sensibility tests demonstrated a negative response to thermal stimulation (cold test; Pulper, GC, Tokyo, Japan) or the

electrical pulp test (Digitest II, MORITA, Kyoto, Japan) in comparison with the responses to the adjacent teeth. The periodontal probing depth was less than 3mm on the buccal side, but 4mm deep, with bleeding and slight pus exudate from the distal aspect of the palatal surface. Root caries as a differential diagnosis were ruled out because no infected dentine was detected.

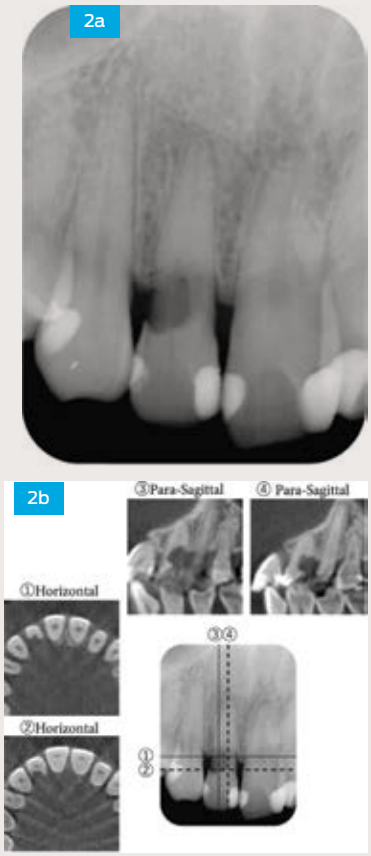
An intraoral radiograph (Figure 2a) revealed a large ECR lesion extending from the distal to the proximal side; however, no obvious radiolucency was evident at the root apex. No radiographic signs of swelling or sinus tract were observed at the right maxillary incisor. CBCT was performed to further explore the extent of the ECR (Figure 2). Horizontal and sagittal CBCT images showed that the ECR lesion had reached the pulp tissue in up to one-third to one-half of the root in the axial direction, and horizontally, the hard tissue defect extended by approximately 180° mainly on the palatal side. It was accordingly diagnosed as a Class III according to Heithersay's classification and Class 2Bp lesion according to Patel's classification (Figure 2b). After diagnosis and classification, a treatment plan (including options) was discussed with the patient. The patient was specifically informed that due to the extent of ECR, it would be difficult to perform root canal treatment (RCT) without accompanying periodontal surgery, which would also include debridement and restoration of the destructed hard tissue.

Owing to the patient's desire to retain the tooth after explanation, consent was obtained for intentional replantation after RCT. Extraction of the tooth followed by placement of a conventional bridge, adhesive bridge, or dental implant (immediate or delayed) was discussed as a potential alternative to intentional replantation. 'Ideal' rubber dam isolation clamping the tooth in question was not possible due to a lack of coronal tooth substance so a split dam technique was all that could be used if RCT and intentional replantation were selected. After presenting the advantages and disadvantages of each treatment method to the patient, the placement of an adhesive bridge after tooth extraction was considered only if intentional replantation was unsuccessful.

Based on the clinical examination, ECR treatment was carried out under magnification using a DOM (M320-D, Leica Microsystems, Wetzlar, Germany).

Due to the nature and extent of the ECR lesion, as discussed previously the split dam isolation technique was performed under local anaesthesia, and

Figure 1: PRICE 2020 flowchart showing the steps involved in the case report. ECR, external cervical resorption; CBCT, cone-beam computed tomography; EPT, electric pulp testing; IOPA, intraoral periapical radiograph.



Figures 2a and b: Radiographic images taken during the patient's initial visit to the University Clinic. (a) Intraoral radiographic image. A large translucency was suggestive of ECR at the maxillary right lateral incisor, extending from the distal to the mesial side, can be observed. It was difficult to accurately determine the buccal-to-palatal extent of ECR. The pulp chamber appeared narrowed adjacent to the ECR lesion. (b) Selected horizontal and para-sagittal images of CBCT volume. 3D observation by CBCT shows that external resorption of the cervical area of the tooth was more pronounced on the palatal side and was diagnosed as a type 2Bp according to Patel's classification. The numbers given in the figure indicate a cross-sectional view of each line of that number.

the palatal gingival tissue adjacent to the ECR was removed using an electronic scalpel under dry conditions to facilitate coagulation. Thereafter, RCT was initiated using a diamond bur with a water-cooled high-speed handpiece. The root canal was narrowed due to ECR and required careful negotiation to access the root canal system. Apical patency was maintained with an H-file #10 (Dentsply Sirona, Ballaigues, Switzerland), and root canal length was measured electrically using an apex locator (Root ZX3, MORITA). Subsequently, a glide path was established, and the root canal was enlarged using a nickel-titanium (NiTi) file system (HyFlex EDM, Coltene, France) with an Endomotor (TriAuto ZX2, MORITA), which was capable of simultaneously measuring the electrical root canal length. The working length was further confirmed on a periapical radiograph image by placing a gutta-percha cone (Figure 3a).

The root canal was profusely irrigated with 2.5% sodium hypochlorite (Neo Cleaner, NC, Neo Dental Chemical Products Co., Ltd., Tokyo, Japan) and 3% ethylenediaminetetraacetic acid solution (Smear Clean, Nishika, Yamaguchi, Japan) delivered using a 27-G root canal irrigation syringe (Neo Dental Chemical Products Co., Ltd.) with simultaneous agitation using a NiTi instrument (X-p Endo finisher, FKG Dentaire, La Chaux-de-Fonds, Switzerland). The root canal was then dried with sterile paper points. A calcium hydroxide dressing (Calcipex II, Nishika) was placed. The first-visit treatment was completed by carefully placing a temporary restoration of glass ionomer cement (GlassIonomer FX ULTARA, Shofu, Kyoto, Japan) up to the root canal orifice to avoid coronal leakage from the palatal side.

At the second RCT visit, the

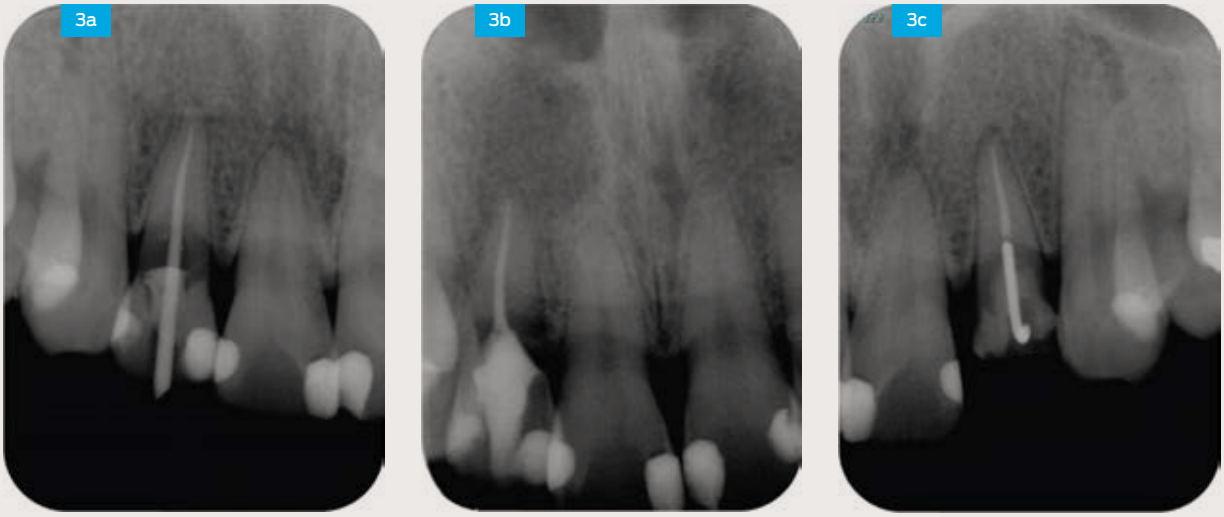
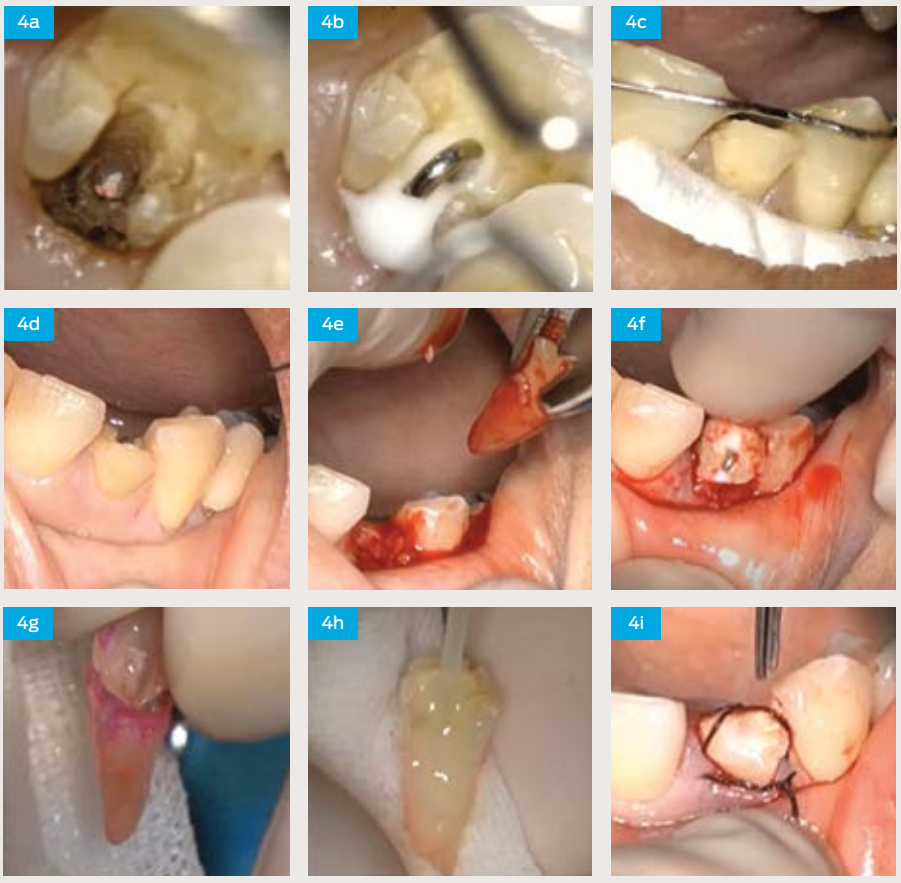


Figure 3a, b and c: Radiographic images before intentional replantation. (a) Endodontic treatment was performed on the maxillary right lateral incisor after the pulp sensibility test result was negative. The working length was confirmed using a gutta-percha cone. (b) Intraoral radiographic image was taken immediately after the root canal filling with a single cone method using a methacrylate resin sealer (MetaSEAL soft paste). (c) An orthodontic hook was placed to assist intentional replantation with minimal damage to the periodontal ligament.

tenderness on percussion had significantly subsided. The glass ionomer cement and calcium hydroxide dressing were removed after isolation using a split dam rubber dam technique, and the root canal was re-irrigated and dried. Then, the root canal was filled with a methacrylate resin sealer (MetaSEAL soft paste, Sun Medical Co. Ltd., Shiga, Japan) and a single-matched taper gutta-percha cone (Figure 3b. As the tooth was asymptomatic after RCT, an orthodontic hook device was placed for extrusion before intentional replantation (Figures 4a, b, c).

After administering local anaesthesia, the temporary sealing material was removed, and the gingival tissue on the palatal side of the ECR was kept dry by removal and coagulation using an electrical scalpel. A 0.7-mm in diameter cobalt–chromium (Co–Cr) hook device was affixed in the root canal using carboxylate cement (HY-BOND Carbo Cement, Shofu), and then a custom-made wire was bridged to the adjacent teeth and fixed with 4-methacryloxyethyl trimellitate anhydride/methyl methacrylate tributylborane (4META-MMA/TBB) resin (Superbond, Sun Medical Co. Ltd., Shiga, Japan). One orthodontic thread was used to tie the wires to provide a sustained extrusion force. Follow-up procedures involved changing the orthodontic threads once per week for three weeks.

The orthodontic device used to extrude the tooth was removed under local anaesthesia before intentional replantation. Intentional replantation was performed by one operator and two assistants in an operating room under



Figures 4a, b, c, d, e, f, g, h, i: Clinical images of the custom orthodontic hook used for extrusion and intentional replantation. (a) After root canal filling, the gingiva of the ECR lesion on the palatal side was removed with an electro-scalpel to access the hook for extrusion. (b) A question mark-shaped bending Co–Cr wire was placed in the root canal with carboxylate cement. (c) Bent Co–Cr wires were also bonded to both adjacent teeth with 4META-MMA/TBB resin. (d) The extrusion hook was removed immediately before intentional replantation. (e) Tooth extraction was carried out with forceps. (f) Root fit in the extraction socket was confirmed after crown rotation. (g) The ECR area was detected using a red dye (caries detector) marketed for caries treatment and visualized using a DOM. (h) A resin-based composite construction with a fibre post was used. (i) After the extraoral procedure, the rotated lateral incisor was replanted.

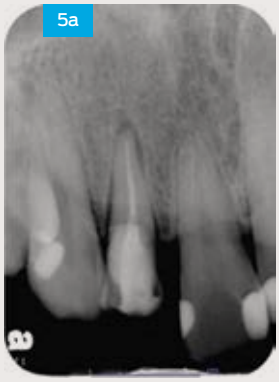
magnification. The mobility of the tooth increased after device removal, and gentle extraction was performed using forceps (Claw, YDM, Tokyo, Japan). Next, the crown was rotated 180° to confirm that it fitted into the extraction socket. This permitted the ECR lesion observed under magnification, and a dye detection solution (usually used for caries detection, Caries detector, Kuraray Noritake Dental Inc., Tokyo, Japan) was utilised to identify the extent of the ECR. The lesion was then meticulously curetted to ensure that no resorptive tissue remained.

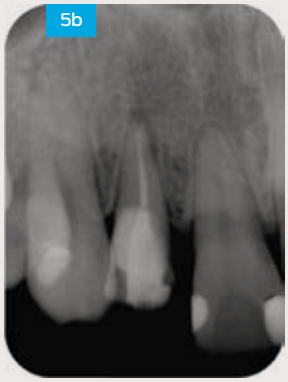
A resin-based composite restoration was placed and cured using blue light irradiation (Pen cure 2000, MORITA) before the tooth morphology was adjusted. Finally, the tooth was replanted in the extraction socket. A sterile saline solution was used to minimise dryness and contamination of the dentine debris, except during ECR removal and morphological modification of composite restorations using a high-speed handpiece. The crown was sutured to the gingiva to promote initial wound healing and stability and fixed to the adjacent tooth with composite resin for reinforcement. The extraoral work time for the intentional replantation procedure was approximately six minutes. These treatments were performed by an endodontist with >10 years of experience.

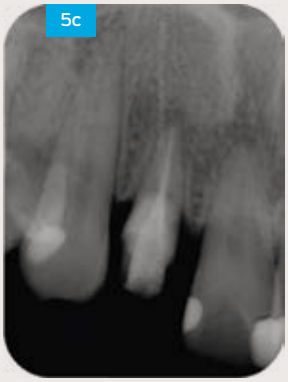
Follow-up appointments were scheduled at various time points.

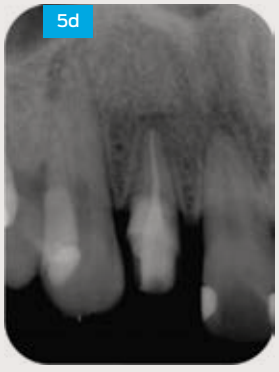
After one week, the sutures and resin cement were removed. Three months after intentional replantation, a provisional restoration was fabricated. RCT was performed with the split dam isolation due to the risk of periodontal exudate contaminating the canal. The tooth was observed for a prolonged period after obturation, with no subsequent symptoms or abnormal findings evident clinically or radiographically. After determining that additional root canal retreatment was not necessary based on a six-month follow-up, a composite resin crown (Kuraray Noritake Dental Inc.) was constructed using computer-aided design/computer-aided manufacturing as the final step in the restoration process. There were no clinical symptoms during this period, and radiographs showed no detrimental effect of intentional replantation. Furthermore, no clinical symptoms or abnormal findings were observed 18 months after intentional replantation. (Figures 5a, b, c, d, e). These results demonstrate the success of ECR treatment with RCT and intentional replantation (Figures 6a, b, c)

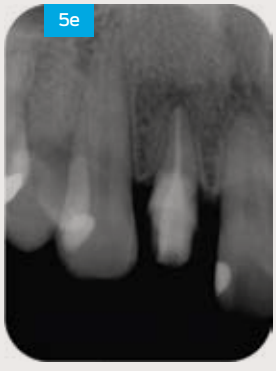
For discussion, conclusion and references see www.irelandsdentalmag.ie/clinical-idm-summer-2025







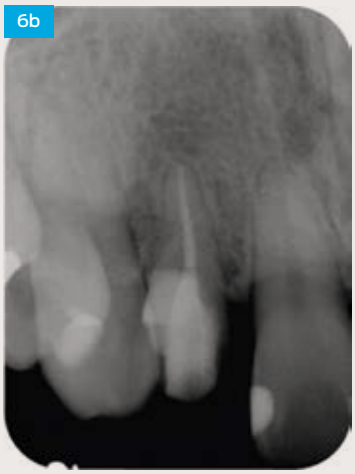


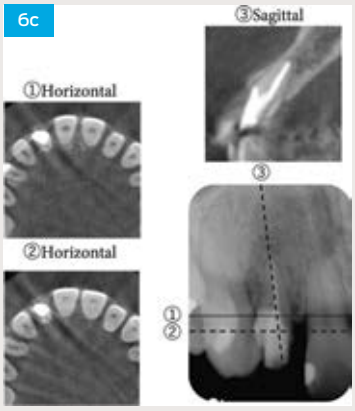


Figures 5a, b, c, d, e: Radiographic images after intentional replantation. (a) Intraoral radiographic image was taken immediately after intentional replantation with crown rotation. (b) Intraoral radiographic image was taken one month after intentional replantation. The periodontal ligament space appears to be slightly larger than that immediately after intentional replantation (c) Intraoral radiographic image was taken three months after intentional replantation. The periodontal ligament space is similar to that around the adjacent teeth. (d and e) Intraoral radiographic images were taken six months and one year after intentional replantation, respectively. Low-contrast component resin crowns are bonded with adhesive resin.

**With joint authors Motoki Okamoto, Yoko Asahi, Nanako Kuriki, Yusuke Takahashi and Mikako Hayashi.*

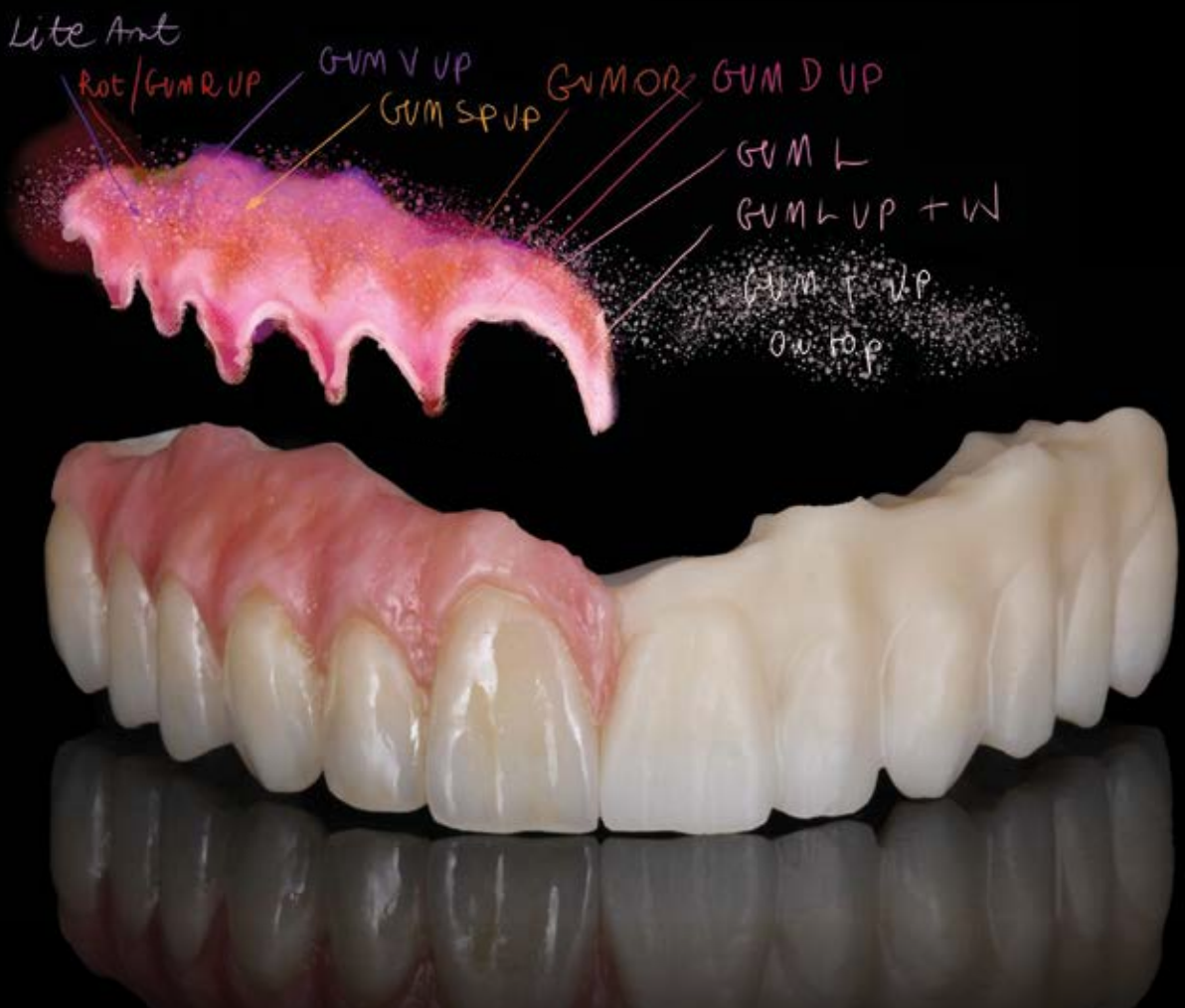
Figures 6a, b, c: Follow-up visit 18 months after intentional replantation. (a) Intraoral photograph was taken 18 months after intentional replantation. No gingival redness or swelling was observed. (b) Intraoral radiograph was taken 18 months after intentional replantation, with no evidence of recurrence of ECR or secondary root resorption after intentional replantation. (c) Representative examples of horizontal and sagittal images of CBCT volumes; 3D evaluation by CBCT showed that the ECR lesion was now filled by the restorative material, and good healing was observed. The numbers in the figure indicate the cross-sectional view of each line of that number.





THE microhybrid veneering concept

CERAMAGE meets digital



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Restoration: DT Inga Potoczna, Saarbrücken/Güdingen, Germany

LOOKING TO BUY A DENTAL PRACTICE? HERE'S WHERE TO START

In this article, Cathy Murphy, Senior Agent – Dental at Christie & Co, shares some key tips for those looking to buy a dental practice in Northern Ireland

Buying a dental practice is an exciting goal for many dentists, offering numerous benefits. Here are some key considerations before purchasing a practice in Northern Ireland.

CHOOSING A PRACTICE

When planning your next steps, consider whether you'd prefer to own an NHS, private, or mixed-income practice, and think about the number of surgeries, the location, and your commuting distance. Flexibility is essential here, as not every practice will meet all your criteria, so go in with an open mind.

STARTING YOUR SEARCH

Register your interest with a dental agent to help you with your search. Avoid agents who charge you fees – those should sit with the seller – and a fair agent will share practice details with all interested buyers to ensure equal opportunities.

FINANCING YOUR PURCHASE

In most cases, a deposit of between 10% and 30% is required to purchase a dental practice in Northern Ireland.

If you require financial help, it'll be useful to know that the dental market is considered a prime sector for funding due to its needs-driven nature, so consult with a specialist finance broker to ensure you're getting what you need at the right rate.

Cathy Murphy
E: cathy.murphy@christie.com
M: +44 7756 875133

TRUSTED ADVISORS

Engage a solicitor and accountant who specialise in the dental sector, as their expertise will help you navigate the process smoothly, avoiding common pitfalls.

BE PREPARED

The dental sector is secure, profitable and driven by need, and therefore, there is plenty of competition from like-minded buyers. If you lose out on a sale, don't be too disappointed - the market is full of other opportunities, and the right one is out there for you.

To find out more about the dental market in Northern Ireland, or for a confidential chat about your business options, contact Cathy Murphy.

Our philosophy is to provide each patient with the smile of their dreams. We use the latest in dental technology to give you your most confident smile in under two hours.

Feeling conscious about your teeth can be damaging to one's self-confidence. Our Signature Smile service can help to solve many areas of concern and are fantastic value for money.

Innovative technology

Traditional approaches to providing composite bonding or veneers are technically demanding, technique sensitive and time consuming. However, using specialised software, we can now provide reproducible smile designs that allow us to obtain high quality and rapid results every time.

With this in mind, we would like to introduce "Signature Smile". This treatment provides you with up to 10 composite veneers, created using facially driven smile design principles. You can even try out the look and feel of your new smile with the 'smile trial' template.

Benefits of Signature Smile

Pain free and no local anaesthetic – due to 95% of cases not requiring any adjustment to the teeth or tooth substance, there is no requirement for injections

- Quick turnaround – this treatment is rapid and can be carried out in 90 minutes
- Patient input – you can tell your dentist what you are looking to improve in your smile, which is incorporated into the design and highlighted during the 'smile trial'
- High quality – through our Signature Smile stents, your dentist can faithfully reproduce your new smile design into your mouth
- Inexpensive – compared to porcelain restorations, Signature Smile can give you results similar to porcelain veneers for a fraction of the price
- Repairability – if you incur any damage to your Signature Smile teeth, it is very straight forward to repair your original specification

Introducing Mary Catherine

Mary Catherine is an Enniskillen native, who was initially drawn to dentistry because of her interest in art and design. After graduating from undergraduate study at Queens University Belfast, Mary Catherine moved to Edinburgh where spent time honing advanced skills within specialist departments; specifically, special care dentistry, paediatric dentistry, oral and maxillofacial surgery and restorative dentistry.

Following training in Restorative and Surgical specialities, Mary Catherine provides advanced dental treatment such as dental implants, surgical extractions, crown and bridgework. At present her most popular treatment is the Align, Brighten and Contour procedure, which entails Invisalign, Whitening and Composite Bonding, a skill that she honed by learning from Dr Monik Vasant.

Building on a knowledge base of surgical and restorative techniques, Mary Catherine is currently undertaking training in dental implantology, and is on course to complete a postgraduate diploma in 2023. She is also studying for a master's degree in advanced aesthetic restorative dentistry, accredited by the University of Portsmouth.

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› AGILIO | DENGRO

AGILIO SOFTWARE SUPERCHARGES DENTAL MARKETING WITH THE ACQUISITION OF DENGRO

In a move that will reshape how dental practices attract and retain patients, Agilio Software, the nation's dominant dental practice solutions provider, has acquired DenGro, the pioneering force behind intelligent dental CRM technology.

It marks the launch of a game-changing, end-to-end patient growth ecosystem, uniting The Fresh, Agilio's bespoke marketing service, with Dengro's intelligent conversion engine to create a seamless platform.

At the heart of DenGro's appeal is its deep integration with leading practice management systems - including Dentally, SOE Exact, Aerona and SFD - enabling real-time data sync, instant appointment booking, and streamlined team workflows. Now, under Agilio's umbrella, these capabilities will be boosted to support ongoing patient engagement, from reactivation campaigns to personalised treatment reminders.

For more information **https://tinyurl.com/bsxamy7d**

› AGILIO

AGILIO UNVEILS MAJOR ITEAM INNOVATIONS

Agilio Software has unveiled innovations to its iTeam, including an industry-first integration with Dentally and powerful new HR and workforce management tools. iTeam provides a powerful all-in-one solution for HR management, rota planning, compliance tracking, leave management, and time and attendance monitoring.

Leading the new updates is Agilio's industry-first Dentally Integration that connects a dental practice's clinical schedules in Dentally directly to their iTeam rotas. For the first time, practices will no longer need to build rotas for clinicians manually. Instead, Dentally schedules automatically sync into iTeam, allowing practices to focus on scheduling nurses and other supporting staff around clinicians' already set hours. Alongside, Agilio is also introducing the new iTeam Document Engine with DocuSign integration. Practices can now manage HR templates entirely within iTeam, auto-fill documents with team member data, streamline approval workflows, and send contracts and other critical documents for e-signature via DocuSign.

Also launching is the Timesheets add-on, a natural companion to iTeam's Time and Attendance features. This addition allows practices to view a full weekly summary of each team member's rota, clocked hours and leave.

› AGILIO | R;PPLE

AGILIO AND R;PPLE UNITE TO TACKLE SUICIDE IN HEALTHCARE

Agilio Software has partnered with R;pple Online Safety, a technology organisation specialising in classifying harmful online content, to bring an award-winning digital crisis intervention tool to healthcare professionals, addressing rising levels of stress, burnout and emotional strain, and uniting around a shared mission to protect mental health and prevent suicide across the sector.

R;pple is a digital tool – available as a browser extension or via Wi-Fi – that provides a crisis intervention for individuals searching online for self-harm or suicide-related content. R;pple interrupts harmful searches with a powerful visual prompt, offering a message of hope and signposting to 24/7 mental health services.

The tool, which has recently expanded its capabilities to cover a broader range of mental health conditions and life challenges – including substance misuse, financial struggles, eating disorders, domestic abuse, and more – is a proactive step towards bridging the gap between online behaviour and real-world help.

Start protecting your team **www.ripplesuicideprevention.com/solutions/healthcare-professionals**

› EMS

EMS UNVEILS NEXT-GEN GBT

EMS Dental has unveiled its revolutionary new GBT Machine® – the most advanced device ever developed for Guided Biofilm Therapy (GBT).

Built on more than 40 years of Swiss innovation, the next-generation solution is engineered to elevate hygiene care, enhance patient comfort and transform the efficiency and profitability of the modern dental practice.

With smart connectivity, automatic GBT mode, intuitive power and water settings and the new PIEZON PS NO PAIN® MAX module, the GBT Machine makes daily workflows easier, faster and more sustainable — all while delivering a superior patient experience.

Dental professionals can book a demo now at **ems-dental.com/en/products/gbt-machine**

To coincide with the launch, EMS is hosting GBT Summit 2025, which will take place at London's Royal College of Physicians on 31 October. The event will showcase innovation and scientific insights.

Book now at **tinyurl.com/gbtsummit**

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