

THE MAGAZINE FOR DENTAL PROFESSIONALS IN IRELAND

Ireland's Dental

SUMMER 2026

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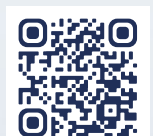
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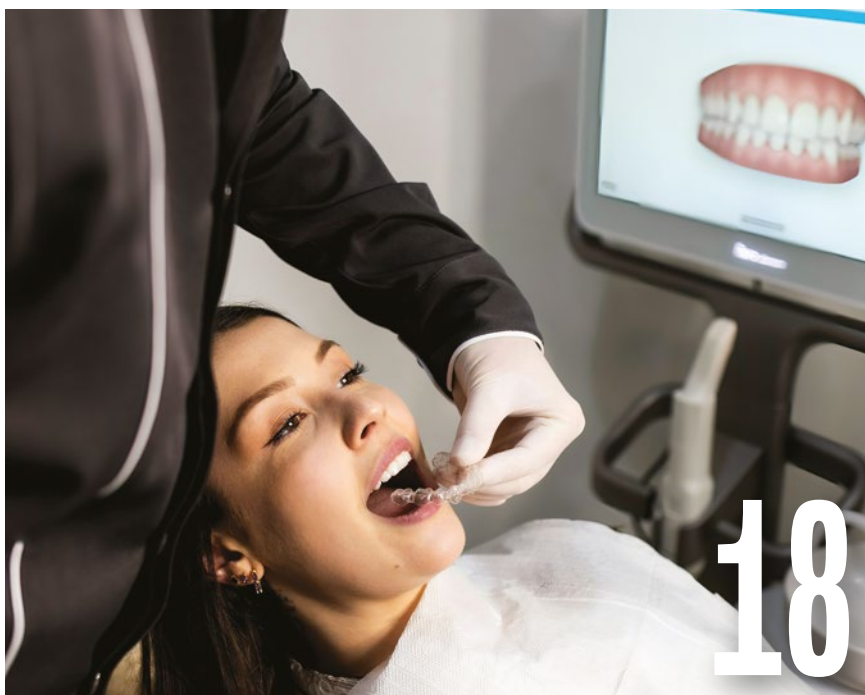
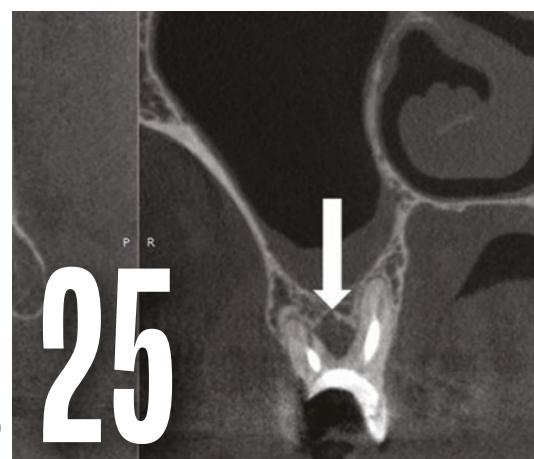


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Courtesy of Dr Z. Ali,
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Air smiles

Why Budapest is Ireland's new capital for dental care

We know all about 'Turkey Teeth'. Indeed, they have been in the news again after the UK regulator, the General Dental Council (GDC), warned that forthcoming sales visits by Turkish clinics could be illegal.

Social media is flooded with adverts for clinics hosting sessions at hotels in Ireland, Northern Ireland and mainland UK. Some ads contain familiar blunders. Last year, one clinic promoted an oral and maxillofacial surgeon whose biography read: "Override the digital divide with additional clickthroughs from DevOps. Nanotechnology immersion along the information highway will close the loop on focusing solely on the bottom line." This year, a quick scan turns up a clinic announcing that "we are coming to Stirling...". That would be Stirling in Scotland, presumably?

Although the clinics claim they are not providing treatment at these events, the GDC said that it is illegal for any non-registered dentist to carry out an assessment for a future procedure in another country. The regulator said it would be contacting the hotels hosting these events to share its concerns. But 'Turkey Teeth' may now have competition on their hands. Introducing, 'Hungary Teeth'. Not quite as alliterative, but catchy, nonetheless. For thousands of people across the island of Ireland, taking care of their teeth is evolving from a routine local chore into an international travel itinerary. Faced with strained public services and increasing private fees at home, a growing number of patients are boarding budget flights to Budapest.

In June, the *Irish Independent* newspaper carried a sponsored editorial feature headlined *A city break, a new smile and aftercare in Ireland – why Budapest keeps attracting Irish patients*¹. The primary driver is simple: economics. Major restorative procedures, such as titanium dental implants, extensive bridgework and zirconia crowns can, at home, carry five-figure price tags. By contrast, Hungarian clinics offer identical treatments, using the same EU-standard materials, at a fraction of the cost, often netting patients savings of more than 50% to 70%. Even after factoring in return flights, several nights in a mid-range Budapest hotel and daily meals, the difference in cost is marked.

An additional, uniquely attractive, financial perk for Irish citizens is the ability to claim tax

relief on their overseas care. Because Hungary is an EU member state, non-routine treatments performed there qualify for Ireland's Med 2 tax credit. Hungarian clinics are well-versed in this system; their staff routinely complete the necessary paperwork, allowing Irish patients to claim 20% back on their expenses through once they return home.

Beyond the price tag, the infrastructure of Hungarian dental tourism has become incredibly streamlined. Many of Budapest's top clinics now employ dedicated Irish coordinators and maintain preliminary consultation rooms or partner practices in places Ireland. A patient can get an initial panoramic X-ray taken locally in Ireland, receive a transparent, itemised treatment plan within 24 hours and have their airport transfers, hotel bookings, and appointments completely coordinated by the clinic before they leave Irish soil.

Furthermore, the quality of care is high. The Hungarian dental sector operates under strict EU medical regulations, and its specialists undergo rigorous university training. Because these clinics explicitly cater to an international clientele, their facilities invest in cutting-edge technology, such as 3D digital smile previews and advanced dental laboratories that speed up production times.

However, dental tourism is not entirely without its trade-offs. Complex procedures such as dental implants naturally require biological healing time.

This means patients often have to plan phased travel, making two or three distinct trips to Budapest over a six-month period; first for the surgical placement of the implants and months later for the fitting of the permanent crowns.

There is also the critical issue of aftercare. If a minor complication or adjustment is needed after returning to Ireland, finding a local dentist willing to work on foreign dental implants can occasionally prove difficult. Reputable Hungarian clinics mitigate this by offering robust warranties and organising local Irish dentists to handle basic post-treatment check-ups.

But the problem is that this shift towards dental tourism redefines oral healthcare as a transactional, 'retail' experience rather than a continuing professional relationship. When patients view dental care as a one-off purchase abroad, they skip the regular maintenance and early interventions that prevent major issues down the line. For the Irish sector, this represents a long-term decay in public health habits, which ultimately results in a population requiring more emergency interventions rather than preventative care.

¹tinyurl.com/56ckn7ds



Looking after the most important instrument in the surgery

As dentists, we spend much of our professional lives caring for the health and wellbeing of others. We monitor risk factors, encourage prevention and help patients maintain their oral health. Yet there is an uncomfortable irony at the heart of our profession; many dentists are far better at looking after their patients than they are at looking after themselves.

Dentistry is a rewarding career, but it is not an easy one. Every day we make hundreds of decisions, manage complex procedures, meet patient expectations, navigate financial pressures and balance regulatory responsibilities. We do all of this while working in physically demanding environments that place considerable strain on our backs, necks, shoulders, eyes and hands. Unlike other professions, there are few opportunities to step away from the chair and reset during the working day.

The cumulative effect of these pressures can be significant. Research consistently identifies dentistry as a profession vulnerable to stress, burnout, musculoskeletal disorders and mental fatigue. While resilience is often celebrated within healthcare, resilience should not mean enduring excessive pressure indefinitely. Rather, it should be about developing the habits and systems that allow us to thrive rather than merely survive.

One of the most overlooked aspects of professional performance is physical wellbeing. The body is quite literally the primary instrument through which we practise dentistry. Poor posture, inadequate movement and prolonged static positioning can lead to chronic pain that affects concentration, productivity and, ultimately, patient care. Small interventions can make a substantial difference. Micro-breaks between patients, stretching routines, ergonomic assessments and regular physical activity are investments rather than luxuries.

This is equally relevant to mental wellbeing. The traditional image of the dentist as an unflappable

professional who copes with every challenge without complaint is increasingly outdated. Modern healthcare recognises that psychological wellbeing is fundamental to professional performance. Talking openly with colleagues, seeking mentorship, participating in peer support groups and accessing professional services when needed should be viewed as signs of professional maturity rather than weakness.

Sleep is another area where many practitioners compromise. A late evening spent catching up on notes, reviewing accounts or responding to emails may seem productive, but chronic sleep deprivation has well-documented effects on concentration, decision-making, mood and clinical judgement. We would rightly advise our patients that health is built on consistent habits; the same principle applies to ourselves.

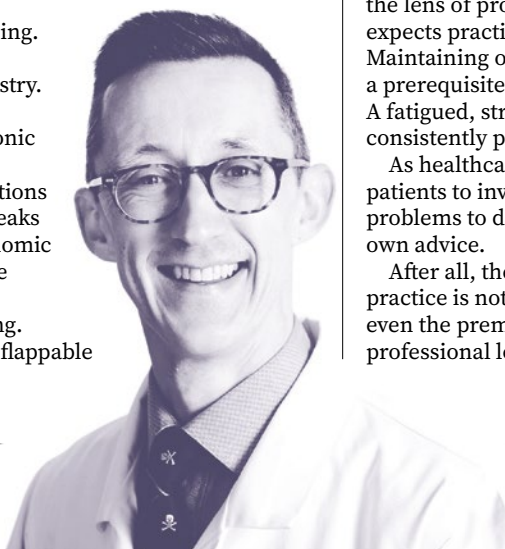
Perhaps the greatest challenge facing dentists today is not necessarily the workload itself, but the relentless pace of modern life. Technology has brought key benefits to dentistry, yet it has also blurred the boundaries between work and home. Emails, messages, online bookings, patient reviews and administrative demands can create the sense that the working day never truly ends.

Establishing boundaries is therefore an important professional skill. Not every email requires an immediate response. Not every problem needs to be solved today. Creating protected time for family, hobbies, exercise and recovery is not selfish – it is essential. The most effective clinicians are not necessarily those who work the longest hours but those who can sustain high performance over decades.

Health and wellness should also be viewed through the lens of professionalism. The Dental Council expects practitioners to provide safe, effective care. Maintaining our own physical and mental fitness is a prerequisite for meeting that responsibility. A fatigued, stressed, or unwell clinician cannot consistently perform at their best.

As healthcare professionals, we often encourage our patients to invest in prevention rather than waiting for problems to develop. Perhaps it is time we took our own advice.

After all, the most valuable asset in any dental practice is not the equipment, the technology or even the premises. It is the health, wellbeing and professional longevity of the dentist behind the mask.



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	SATURDAY 5TH SEPTEMBER 2026
	SATURDAY 3RD OCTOBER 2026
CBCT MASTERCLASS LEVEL 1 & 2	FRIDAY 2ND OCTOBER 2026
UNIT 2 10am-5pm (1 hour Lunch)	RADISSON BLU, ROYAL HOTEL, DUBLIN
SURGICAL PRINCIPLES	FRIDAY 30TH & SATURDAY 31ST OCTOBER 2026
SURGICAL SKILLS DAY	SUNDAY 1ST NOVEMBER 2026
UNIT 3 10am-5pm (1 hour Lunch)	RADISSON BLU, ROYAL HOTEL, DUBLIN
THREE DAYS MENTORING (GLASGOW)	NOVEMBER 2026
Three days mentoring conducted at the Centre For Implant Dentistry in Glasgow. Dates for mentoring days will be assigned after sign up for the Diploma.	DECEMBER 2026
	JANUARY 2027
UNIT 4 10am-5pm (1 hour Lunch)	RADISSON BLU, ROYAL HOTEL, DUBLIN
RESTORATIVE ASPECTS OF IMPLANT DENTISTRY	FRIDAY 29TH JANUARY 2027
	SATURDAY 30TH JANUARY AND SUNDAY 31ST JANUARY 2027
UNIT 5 10am-5pm (1 hour Lunch)	RADISSON BLU, ROYAL HOTEL, DUBLIN
PRACTICAL SOFT TISSUE GRAFTING AROUND TEETH AND IMPLANT MASTERCLASS	FRIDAY 23RD APRIL 2027
PERIODONTAL CONSIDERATIONS AND PROBLEM MANAGEMENT	SATURDAY 24TH AND SUNDAY 25TH APRIL 2027
SUMMARY DAY	TO BE CONFIRMED

COURSE WEBINARS	STREAMED AT 6PM ON:
TREATMENT PLANNING	THURS 22ND OCT 2026
TREATMENT PLAN LETTER	THURS 10TH DEC 2026
SURGICAL ASPECTS	WED 7TH JAN 2027
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Dental registration crashes to all-time low

The 'writing is on the wall' for Health Service dentistry, says the BDA

THE British Dental Association has warned that official data shows "the clock is well and truly ticking" on Health Service (HS) dentistry in Northern Ireland, with less than half of the public now registered with an HS dentist.

The General Dental Services Statistics 2025/26¹, show that total registration levels hit 49% for the first time in a generation, with less than 44% of adults now registered; an all-time low. The BDA said the figures reflect a "disappearing service, one that is struggling to maintain its sustainability in the face of rising costs and wholly inadequate fees." It leaves some parts of Northern Ireland, such as Fermanagh and Omagh, with only 30% of adults registered with an HS dentist. Treatments delivered by HS dentists are down by 4% on year, and 37% since COVID19.

The BDA warned in April that new measures announced to help stabilise and safeguard access to high street dentistry were insufficient and should be followed by reform of the dental payment system. With many practices now delivering HS care at a loss, it said that a promised 'cost-of-service review', now thought to be awaiting final sign off, must form the evidence base for a "new, fair and genuinely sustainable dental payment model". It urged Health Minister Mike Nesbitt to publish the review without delay.

In a rare display of consensus in April, Members of the Legislative Assembly (MLAs) passed an Assembly motion which calls on the Minister to develop a new oral health strategy to reform dental services, address workforce challenges and expedite dental payment

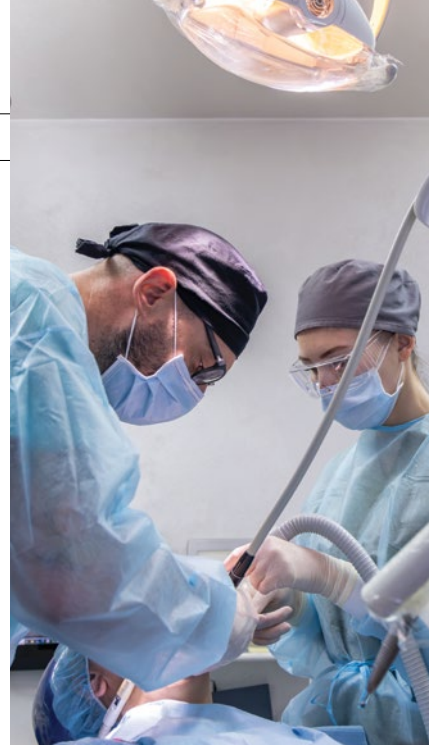


Image credit: Artyart / Shutterstock

reform. Ciara Gallagher, chair of the BDA's Northern Ireland Dental Practice Committee, said: "New figures show that the writing really is on the wall for health service dentistry in Northern Ireland. The Minister knows what needs to be done. Underfunded and overstretched, practices are on the brink and cannot be expected to continue delivering care at a loss."

tinyurl.com/5c4wdsf6

Link between diabetes and periodontal disease 'not discussed'



Image credit: My Ocean Production / Shutterstock

MOST primary and secondary healthcare professionals do not discuss the link between diabetes and periodontal disease with their diabetic patients, according to a study¹. They also tend not to refer patients with diabetes to a dentist or inform their dentist of the diagnosis.

The study set out to identify current practice,

knowledge and beliefs of medical healthcare professionals related to the link between periodontal disease and diabetes. A cross-sectional observational study was undertaken in 2021 with endocrinology consultants and registrars, general practitioners, diabetes specialist nurses, practice nurses and healthcare

assistants involved in the care of people with diabetes across the country.

Exploratory interviews were used to inform the development of an online self-report questionnaire. In total, 128 medical healthcare professionals completed the questionnaire. Quantitative data were subjected to frequency

calculations. Qualitative data were analysed using thematic analysis.

The questionnaire revealed that most participants did not discuss the link with their diabetic patients with diabetes, did not refer patients with diabetes to a dentist or inform the dentist of the diagnosis. Participants reported a lack of awareness of the link, insufficient time to discuss this with patients and unclear referral pathways.

The study's authors said that it had highlighted the need to strengthen education and patient communication by raising awareness, developing resources and improving referral pathways between medicine and dentistry.

www.nature.com/articles/s41415-026-9625-7

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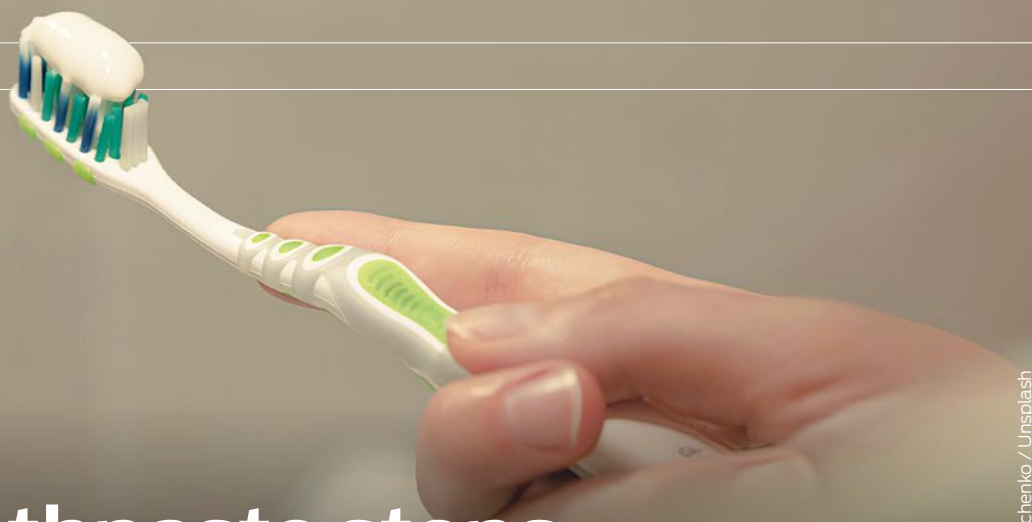


Image credit: Roman Marchenko / Unsplash

New toothpaste stops periodontal pathogens

It contains a substance that selectively inhibits only those bacteria that cause periodontitis

RESEARCHERS have identified a substance that selectively inhibits only those bacteria that cause periodontitis, thereby preserving the natural balance of the oral microbiome.

Pathogenic bacteria are killed by conventional oral care products such as alcohol-based mouthwashes and products containing the antiseptic chlorhexidine, but these also eliminate beneficial microorganisms.

When the oral microbiome re-establishes itself after treatment, pathogenic bacteria such as *Porphyromonas gingivalis* gain an early advantage because they proliferate particularly well in inflamed gum tissue. Beneficial bacteria grow more slowly, and the oral microbiome quickly shifts back from its natural balance into dysbiosis, allowing the disease to recur.

Researchers at the Fraunhofer Institute for Cell Therapy and Immunology IZI identified a substance, known as *guanidinoethylbenzylamino imidazopyridine acetate*, that selectively blocks harmful pathogens such as *Porphyromonas gingivalis* without affecting other bacteria¹.

“Rather than simply killing gingivitis pathogens, it inhibits their growth,” said Stephan Schilling, Head of the Fraunhofer IZI branch Molecular Drug Biochemistry and Therapy Development. “They are unable to exert their toxic effects, so beneficial bacteria can occupy niches that would otherwise be inaccessible to them. In this way, the substance works in harmony with healthy bacteria to gently rebuild and stabilise the microbial balance in the mouth.”

The basis for this technology originated from an EU-funded project involving numerous international partners. The spin-off company PerioTrap Pharmaceuticals GmbH was founded in Halle, Germany, in 2018 with the aim of developing innovative oral care products.

PerioTrap created its microbiome-friendly toothpaste in close collaboration with Fraunhofer IZI and the Fraunhofer Institute for Microstructure of Materials and Systems IMWS. “The product is designed to prevent periodontitis. Like conventional toothpaste, it also contains abrasives and fluoride to prevent tooth decay,” said Mirko Buchholz, one of the founders.

¹www.fraunhofer.de/en/press/research-news/2026/january-2026/new-toothpaste-stops-periodontal-pathogens.html

Peri-implantitis finding offers hope of new treatment

WHILE dental implants have given tens of millions of people something dentures never could – a full set of fixed and fully functioning teeth – 10%-20% of implant patients eventually experience the aggressive jawbone infection, peri-implantitis. Antibiotics usually fail to stop the infection for reasons that researchers have not understood until now.

A recent study¹ by researchers at the Rutgers School of Dental Medicine in the US has found that bacteria corrode implants, causing them to shed microscopic titanium particles into surrounding tissue. Those particles hijack immune cells sent to clear the infection and lock them into a state of inflammation that destroys the jawbone they are supposed to protect.

Peri-implantitis has long been a puzzle because it initially looks like its counterpart in natural teeth, periodontitis, and begins with the same oral bacteria. In patients with natural teeth, antibiotics and routine cleaning resolve the infection. In patients with implants, the same drugs against the same bacteria succeed less than half of the time, while the bone underneath continues to disappear.

Working with human tissue samples, cultured human immune cells and a genetically engineered mouse model, the team pinpointed a specific calcium channel in the bacteria-eating macrophages that the titanium particles activate. Switching that channel off in mice prevented the disease. The result is the first credible drug target for a condition that affects up to one in five implant recipients and costs the global health system more than a billion dollars a year.

“For the first time, we show why all the antibiotic treatments that work around teeth do not work around implants,” said Georgios Kotsakis, the study’s senior author and the assistant dean for clinical research at the dental school. “Now that we know the cause, we can start developing therapeutics.”

¹www.academic.oup.com/pnasnexus/article/5/4/pgag081/8533976

Fighting oral cancer with bioengineered chewing gum

Bean gum extracts reduced HPV levels by 93% in saliva samples and by 80% in oral rinse samples

RESEARCHERS have shown¹ that extracts from bioengineered chewing gum reduce the levels of three microbes known to be associated with head and neck squamous cell carcinoma (HNSCC), paving the way for potentially more effective and affordable therapies.

HNSCC is a common cancer that develops in the lining of the mouth and throat. It can be aggressive and often has poor outcomes, especially when diagnosed at advanced stages.

Building on previous work using a chewing gum made from lablab beans (bean gum) containing the naturally antiviral protein FRIL, researchers at the University of Pennsylvania's School of Dentistry examined the levels of three microbes linked to cancer; human papilloma virus, or HPV, and two species of bacteria, *Porphyromonas gingivalis* (Pg) and *Fusobacterium nucleatum* (Fn) – in oral samples from patients with HNSCC.

“The global increase in oropharyngeal cancer is linked to HPV infection,” said lead researcher Henry Daniell. “And Pg and Fn infections worsen survival rates of untreated recurrent or metastatic oral cancer, even after surgery and risk-adjusted adjuvant, or supplemental, therapies.”

They found that bean gum extracts reduced HPV levels by 93% in saliva samples and by 80% in oral rinse samples.

When they bioengineered the bean gum to also contain protegrin, an antimicrobial peptide that can kill harmful bacteria, they found that a single dose reduced the levels of Pg and Fn to almost zero without affecting the beneficial bacteria normally found in the mouth.

This contrasts with radiation therapy, which both reduces beneficial bacteria and increases disease-causing yeast (*Candida albicans*).



Image Credit: Kevin Monko / Penn Dental Medicine

“Lip and oral cavity cancer was the seventh leading cancer type in cancer incidence and mortality rate worldwide in adolescents, young adults and middle-aged adults in 2022,” said Daniell.

“Our findings support the value of advancing these therapies to clinical trials as adjuvants with current treatments or as prophylaxis to prevent infection and transmission.”

¹www.nature.com/articles/s41598-026-39062-w

Mothers' prenatal immunity shapes lifelong resistance to gum disease

MOTHERS provide a hidden immune legacy that protects their children's teeth long after weaning is over, according to a new study¹. Maternal antibodies act as “early-life architects”, programming the mouth to resist aggressive bacteria and prevent the bone loss associated with adult gum disease.

Research by the Hebrew University of Jerusalem focused on the transition period after birth when the oral cavity is first exposed to a surge of microbes. To navigate this vulnerable stage, mothers provide their offspring with essential immune tools through two distinct pathways: in utero transfer and breastfeeding.

The study found that antibodies transferred during pregnancy, known as in utero-derived IgG, act as a primary architect for the mouth's immune landscape. These antibodies reach the neonatal salivary glands and are secreted into the saliva. Their presence is crucial for maintaining a healthy balance, as they

essentially teach the immune system to remain calm in the presence of friendly bacteria while preparing it for future threats.

In laboratory models, offspring that lacked these prenatal antibodies exhibited hyper-activated immune cells and higher bacterial loads in their salivary glands and gums. This lack of early instruction led to significant changes in adulthood, specifically an increased susceptibility to periodontitis, a condition characterised by destructive inflammation and bone loss around the teeth.

While prenatal antibodies focus on internal immune ‘tone’, those delivered through breast milk serve a different purpose. The research indicates that breast milk antibodies are essential for the proper physical maturation of the oral epithelium, the protective lining of the mouth.

These postnatal antibodies help regulate the timing of ‘barrier sealing’, ensuring that the mouth's protective lining becomes a sturdy

defence at just the right moment. This process is highly sensitive to the microbial environment. The study noted that when these antibodies were absent or their effects were disrupted by antibiotics, the physical integrity of the oral barrier was compromised.

The findings offer a new perspective on the origin of oral diseases. The team identified that maternal IgG specifically recognises and binds to certain oral pathobionts, such as the *Pasteurellaceae* family, which are known to drive aggressive forms of gum disease.

This discovery opens the door for preventive strategies, such as maternal immunisation. By vaccinating mothers during pregnancy, it may be possible to enhance the specific antibodies passed to the child, effectively pre-programming their immune system to resist chronic oral infections later in life.

¹www.doi.org/10.1038/s41467-026-71704-5

Lyttle Cup retained by IDA

A total of 221 points beat the BDA's brave showing of 212

THE Annual Golf Match for the Lyttle Cup between the Irish Dental Association (IDA) Golf Society and the British Dental Association (BDA) Northern Ireland Branch had a new venue this year.

The Valley Course at Royal Portrush hosted the match, which alternates between the north and south each year.

The omens were not good; the Republic of Ireland lost their World Cup qualifier play-off on penalties the night before. Strangely, no televisions were showing it in Portrush!

However, Northern Ireland lost as well. Could both sides lose the golf match?

As it happened, the weather was better than earlier forecasts had suggested but it was still very challenging.

Those used to playing links golf in windy conditions and those who used to playing off mats, to protect the sensitive links turf until spring growth starts, filled most of the top positions along with those talented enough to cope with the conditions. Some struggled!

A total of 31 played; 18 from the IDA and 13 from the BDA. Generous sponsorship from Dental Care Ireland (DCI) covered most of the golf costs and was much appreciated by both sides



The IDA team, with Captain Gary Squires, was Sean Malone, Gerry Kilfeather, Fionn Murphy, Michael Galvin and Johnny Nolan, along with Brendan Flanagan who won the Rankin McCloud Tankard for the best IDA veteran

as DCI is a cross-border organisation, sponsorship went to both sides.

Each year, the top six Stableford scores from each side are put against each other and this year the IDA triumphed handsomely.

A total of 221 points (an average of nearly 37 per person) beat the BDA's brave showing of 212. The IDA's team comprised Gary Squires, Sean Malone, Gerry Kilfeather, Fionn Murphy, Michael Galvin, Johnny Nolan and Brendan Flanagan.

Artificial saliva protects teeth from acid and decay

SCIENTISTS have created an artificial saliva using a sugarcane protein that can protect teeth and fight bacteria. The key ingredient, CaneCPI-5, binds directly to enamel, forming a shield against acids that cause decay.

Early tests show it works even better when paired with fluoride and xylitol, significantly reducing damage to teeth. The innovation could be especially life-changing for cancer patients who lose saliva production after treatment.

Researchers at the Bauru School of Dentistry, University of São Paulo, found that CaneCPI-5 creates a protective 'shield' over teeth. This layer helps defend enamel from acids found in beverages such as juice and alcohol, as well as acids from the stomach. The findings were published in the *Journal of Dentistry*¹.

Professor Marília Afonso Rabelo Buzalaf, lead author, said: "We tested the

mouthwash developed with CaneCPI-5 by applying this solution to small pieces of animal teeth once a day for one minute. Based on these results, we'll conduct further research so that we can think about applications of this product.

"This is the first product that uses the concept of acquired pellicle [a thin protective layer that quickly forms on the tooth surface] to treat xerostomia, which is the sensation of a dry mouth caused by a lack of saliva.

"We use substances that will reformulate the composition of the proteins that bind to the teeth. We've developed a process in which CaneCPI-5 binds directly to tooth enamel, helping to make teeth more resistant to the action of acids produced by bacteria."

¹www.sciencedirect.com/science/article/abs/pii/S0300571225006220



Image credit: Drazen Zigic / Shutterstock

College opens four new routes to Associate Fellowship

This widens eligibility to those with accomplishments and experience in teaching, leadership, research or dento-legal matters

FOUR new routes to Associate Fellowship have been opened by the The College of General Dentistry (CGDent), significantly widening eligibility to those with accomplishments and experience in teaching, leadership, research or dento-legal matters.

A stepping stone to Fellowship, Associate Fellowship was introduced by the College at its inception to increase the standing of those dental professionals who have significantly developed their knowledge and skills. Open to those in all dental team roles, it bridges the large gap between Membership and Fellowship which previously offered no further recognition of these individuals' achievements.

To date, Associate Fellowship has only been open to those holding particular qualifications, broadly aligning it to the requirements of the old Clinical domain of College Fellowship. To widen relevance across different aspects of professional achievement, and to further recognise the diversity of contributions made to the profession in the service of patients, Associate Fellowship is now open to any dental professional meeting the requirements of any one of the College's five Fellowship domains.

Clinical and Technical

This domain requires the applicant either to hold an eligible award or to submit a clinical portfolio demonstrating equivalent training and capability. Qualifying awards include a relevant Postgraduate Diploma, Master's degree or PhD from a recognised UK or EHEA higher education institution

or an accredited UK provider; the CGDent Diploma in Primary Care Orthodontics or Certified Practitioner status; specialty membership of a UK Royal College or Royal College faculty; a diploma in a specific dental discipline from RCS England, RCS Edinburgh or the former FGDP; the MGDS, MAGDS, MDS or MRACDS; and Accredited Full Membership of the British Academy of Cosmetic Dentistry.

Alternatively, applications by clinical portfolio are currently open in Restorative Dentistry, with specifications for Implant Dentistry and Orthodontics due to be published soon.

Teaching and Assessment

This requires applicants to either be recognised by an authoritative body in this field, to have a relevant Postgraduate Certificate together with three years' qualifying experience, or to have eight years' qualifying experience plus verified training.

For example, applicants can qualify if they have eight years' service as an NHS Educational Supervisor (for at least 200 hours per year), together with either 27 hours' relevant and recent CPD or Fellowship of the Faculty of Dental Trainers of the Royal College of Surgeons of Edinburgh.

Leadership, Management and Clinical Governance

Applicants under this domain should either hold an eligible diploma-level leadership qualification, or a certificate-level leadership qualification together with

three years' service in a relevant leadership role, or have three years' experience in a defined senior leadership role together with 10 hours' relevant and recent CPD. For example, applicants qualify if they have three years' experience of leadership, oversight and accountability as principal or partner of a multi-chair practice with a minimum of six registrants, together with a relevant Level 7 Postgraduate Certificate or ILM Level 5 diploma.

Research and Publications

Applicants should either have completed a relevant Doctorate or Master's degree including a research dissertation, or have had at least five peer-reviewed articles published in MEDLINE-indexed publications (such as the *Primary Dental Journal*) or *Dental Update*.

Law and Ethics

This domain requires applicants to have either five years' experience in a qualifying role together with 10 hours' relevant and recent CPD, or to have a law degree or relevant postgraduate qualification together with a year's experience in a relevant role.

Associate Fellows are senior members of the College who are advancing their journey towards Fellowship. Recognised as 'Enhanced Practitioners' on the College's Career Pathway, their professional standing is marked out by the use of the postnominal AssocFCGDent.

Full details of the domains, and a link to apply, are available at cgdent.uk/fellowship-domains

BDIA and BADN announce partnership

THE British Dental Industry Association (BDIA) has partnered with the British Association of Dental Nurses (BADN) in a bid to better support the dental sector.

Both organisations share a common goal; to support the people and businesses that keep dentistry moving forward, while maintaining high standards of patient care.

By working together, the BDIA and BADN say they can offer

greater support, share knowledge and create new opportunities for their members.

The partnership connects dental suppliers with dental nurses, helping both sides better understand each other and work more effectively together.

The BDIA and the BADN will work together to provide updates, training and insights to help dental nurses stay up to date with the latest products and best

practices, and to help suppliers understand and appreciate the important role of the dental nurse in the dental team.

Members will benefit from access to more resources, ideas and opportunities through this collaboration. "We're really pleased to be working with the BADN," said Edmund Proffitt, the BDIA's Chief Executive.

"Dental nurses are at the heart of patient care, and this

partnership helps us build a stronger connection between the industry and the people using the products every day."

Carolyn Roberts RDN, President-elect of the BADN, said: "Working with BDIA means our members can feel more connected to what's happening across the industry and better supported in their roles.

"We're excited about what we can achieve together."

WHY CHANGE ANYTHING?

Adopting guided implant surgery may be one of the best clinical decisions you make

WORDS
DR VAIDAS
VARINAUSKAS

Dental implants have been used to replace missing teeth for more than 60 years. The shape of implant threads, external design and fixation elements are still changing and evolving over time to improve integration with the jawbone and soft tissues. The classic dental implant placement protocol was introduced in the 1960s by Per-Ingvar Brånemark and involved delayed implant placement.



Per-Ingvar Brånemark in his study at the University of Gothenburg

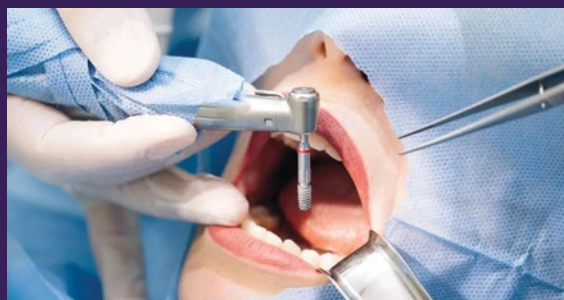
Since then, we have progressed from delayed placement to immediate post-extraction placement with immediate loading. Naturally, freehand (or eye-guided) implant placement will be replaced by computer-assisted implant surgery, as this allows us to provide accurate, pre-planned implant placement using prefabricated prosthetics prepared in advance of the surgery.

Just as in everyday life there are people who are sceptical of electric cars and will always find a million reasons not to buy one, the same exists in the dental

community. There are clinicians who believe guided implantology is not necessary for them; they have been operating for five, 10 or 20 years, their complication rate is below 5%, and they ask: "Why should I change anything?"

The answer is simple. If you only have a few years of practice left, then do not waste your energy; continue working with your proven method. But if you have not yet reached the midpoint of your career, I want to encourage you to catch up with those already using this highly advanced, treatment-enhancing method.

I placed my first dental implant back in 2005. Over the past 20 years, I have built a strong foundation in surgical techniques, handling a wide range of clinical situations, from single implants to full-arch cases. I have consistently achieved very stable peri-implant bone



With traditional implant surgery, the dentist studies the patient's oral anatomy through X-rays or CT scans. They then place the implants into the jawbone at a depth and angle that they believe is the most appropriate. Only after the operation, the dentist can see if the positioning of the implant is good

levels; the kind of outcomes we used to call 'zero bone loss'. For many years, I approached implant placement entirely using the traditional freehand method.

Like many experienced clinicians, I was sceptical about guided surgery. I saw it as something useful for beginners or those with limited surgical confidence. But I was wrong. That perspective changed shortly after the



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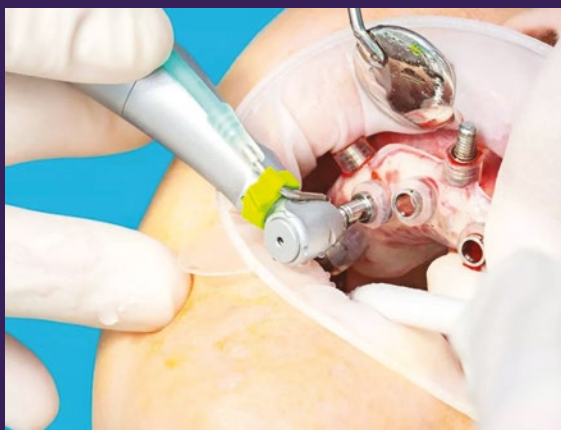


I CAN CONFIDENTLY SAY ADOPTING GUIDED SURGERY WAS ONE OF THE BEST CLINICAL DECISIONS I HAVE MADE”



COVID disruption, when I introduced guided surgery into my daily workflow. I extend my sincere thanks to my colleague, whose support and guidance were invaluable throughout my transition into guided implantology.

Now, looking back, I can confidently say adopting guided surgery was one of the best clinical decisions I have made. If I could turn back the clock, I would have embraced it much sooner. Guided surgery is not about replacing surgical skill; it is about enhancing precision, improving prosthetic outcomes and creating a more predictable workflow, especially when working on full-arch immediate loading cases.



Guided implant surgery utilises advanced dental technology such as 3D cone beam computed tomography to plan and perform the surgery with high precision

Why should I choose guided implant surgery over freehand?

Here are, in my opinion, some of the most important and indisputable indications:

- When high precision is required near critical anatomical structures; IAN, mental foramina, arterial branches or atypical alveolar anatomy
- When inter-root distance requires extreme accuracy and parallelism to maintain safe distances and prevent root damage
- When aiming to avoid sinus lift procedures (due to pathology or patient preference) and maximise available alveolar height using non-standard/odd angulations
- For immediate placement cases where optimal implant positioning is crucial, whether in posterior or anterior regions
- When planning immediate loading with fixed partial or full-arch restoration
- When aiming for minimally invasive flapless procedures to reduce postoperative discomfort
- When working with porous bone and aiming to avoid “spinners” while achieving good primary stability
- In complex cases, e.g. full-arch rehabilitation involving extraction of non-restorable teeth (terminal dentition – this term itself deserves more open discussion within

our dental community), alveolar ridge reduction and immediate full-arch restoration

- When placing orthodontic palatal implants
- When preparing a site for tooth auto-transplantation.

Once you decide to step into (static) guided implantology, you will need a high-resolution CBCT, an intraoral scanner with high-quality scans, computer-aided design software, a 3D printer and a guided surgical kit of the implant system you are familiar with.

The most critical step in achieving the pre-planned outcome is transferring the virtually planned implant position from the software to the patient's mouth. I strongly recommend being actively involved in all stages of guide planning; from implant positioning and adoption of prosthetic components to selection of guide support teeth (and/or fixation pins) and designing the guide itself.

The accuracy of implant placement with static guided surgery depends on multiple factors. The three main groups of potential errors are:

- During image acquisition (CBCT, surface/dental registration, guide manufacturing)
- Related to the type of guide support (tooth-supported guides are most accurate; bone-supported are the least accurate)
- During the surgical procedure (surgeon-related).

The precision of guided surgery depends on the accumulation of all these factors, from scanning to final implant insertion. The main concern remains the deviation (coronal, apical and angular) between planned and actual implant positions. These deviations are well documented, and here are my tips to minimise them:

- 1 Find an experienced mentor (preferably a clinician rather than dental technician at the beginning) who can guide you from planning to analysis of the surgical results.
- 2 High-quality intraoral scans and properly processed CBCT data to reduce planning improvisation.
- 3 Careful selection of support teeth for guide fixation, minimising time between scan and surgery. Remember that mobile teeth may shift; always use the most recent scan in complex cases.
- 4 Design bilateral tooth-supported guides rather than unilateral; avoid starting with gum- or bone-supported guided; build confidence gradually.
- 5 After seating the guide, verify its fit; use perforation windows and consider printing guides in transparent resin.
- 6 Choose higher sleeves when possible, to reduce apical deviation and prefer metal sleeves over sleeveless guides.
- 7 Always maintain safe distances when planning near teeth or between implants as later components may not fit.
- 8 Choose an implant system that allows easier handling, especially in posterior regions where space is limited; we are not treating crocodiles.
- 9 Always have a Plan B in case the guide does not fit or fractures during surgery.

Dr Vaidas Varinauskas (PhD | DMD) is a Specialist Oral Surgeon and Clinical Director at Seapoint Clinic, Dublin.



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REVERSE EVIDENCE-BASED DENTISTRY

BRIDGING CLINICAL REALITY AND SCIENTIFIC EVIDENCE

Why starting from clinical observation may strengthen evidence-based practice rather than challenge it

WORDS

ANDREA MASCOLO,
DDS, MSC (ORAL SURGERY)

The reality of modern clinical decision-making

Every practising dentist recognises the complexity of modern clinical decision-making: balancing professional judgement, patient expectations, rapidly evolving technologies and an ever-expanding body of scientific evidence; all within the practical constraints of time, workload, service pressures and real-world care.

In Ireland and Northern Ireland, where dentistry continues to evolve through prevention-focused models, quality improvement, reflective professional development and increasing digital integration, clinicians are navigating new layers of complexity; from artificial intelligence and digital diagnostics to shifting patient behaviours, widening health inequalities and growing recognition of oral-systemic health connections.

Evidence-Based Dentistry (EBD) remains the gold standard for informed clinical care. Yet in everyday practice, decisions rarely begin with a systematic review or formal guideline consultation. More often, they begin with something immediate and familiar; a recurring chairside observation, a clinical pattern that raises questions or a treatment approach that appears to deliver meaningful outcomes. It is precisely at that point that Reverse Evidence-Based Dentistry begins.

What is Reverse Evidence-Based Dentistry?

Reverse Evidence-Based Dentistry (rEBD) is not a rejection of conventional EBD, nor an alternative to rigorous scientific appraisal. Rather, it is a complementary framework that begins where many clinical decisions begin, with observation in practice. A recurring treatment outcome, a pattern repeatedly seen in patients or a clinical approach that appears consistently effective may all prompt a simple but important professional question:



rEBD encourages clinicians to start from recurring chairside observations, formulate structured questions, and reconnect practice with scientific appraisal

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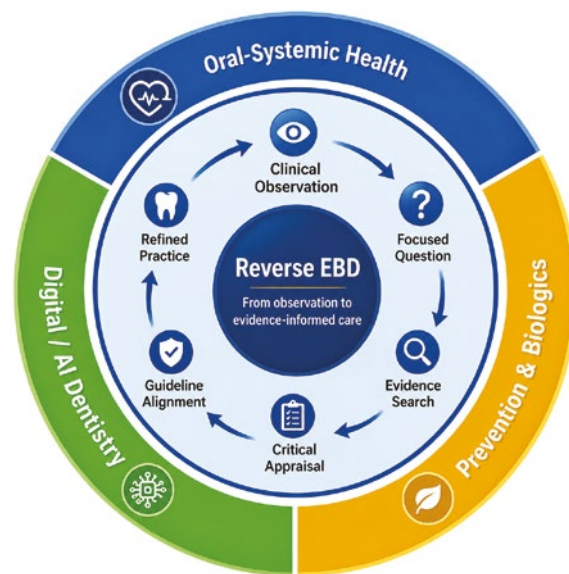
Enhanced Treatment Presentation



“Why does this work, and what evidence truly supports it?”¹

From that point, rEBD follows a structured pathway: clinical observation → focused question → targeted evidence search → critical appraisal → guideline alignment → refined clinical practice — moving backward from lived clinical experience toward scientific validation before returning forward into improved patient care.

Originally described as an educational and translational framework for strengthening reflective clinical reasoning, rEBD was conceived as a way to bridge the gap between everyday practice and scientific inquiry, creating a more dynamic dialogue between observation and evidence.^{1, 3} Properly understood, rEBD does not weaken EBD; it may, in fact, deepen it.



A conceptual framework of rEBD which transforms clinical observation into structured inquiry, scientific validation and refined patient care through an iterative cycle of evidence-informed practice. Adapted from Mascolo et al.¹

Why this matters now

Ireland and Northern Ireland provides a particularly relevant environment in which to consider the practical value of rEBD. They combine a strong tradition of evidence-informed clinical guidance with growing emphasis on prevention, reflective professional development, quality improvement and service redesign.

At the same time, dentistry continues to navigate challenges familiar across modern healthcare systems: oral health inequalities linked to deprivation, variation in access between urban and rural communities, changing attendance patterns and increasing expectations placed on the wider dental team.^{5,6}

These pressures are unfolding alongside rapid digital transformation, expanding discussion around skill mix and direct access models, and renewed focus on professionally reflective care pathways. Within this evolving landscape, clinicians are increasingly required not only to apply evidence, but to interpret it critically within the realities of everyday practice.

That is precisely where rEBD offers practical value. By encouraging clinicians to start from recurring chairside observations, formulate structured questions and reconnect practice with scientific appraisal, rEBD aligns naturally with Scotland's culture of clinical audit, continuing professional development and evidence-informed service improvement. In this context, it is not simply a conceptual framework, it is a practical tool for modern Scottish dentistry.

Three chairside situations where rEBD makes a difference

rEBD becomes most valuable when applied to questions

Clinical vignette: rEBD in everyday practice

A familiar chairside challenge

A 52-year-old patient presents repeatedly with signs of peri-implant mucositis; bleeding on probing, localised inflammation and intermittent discomfort around a posterior implant restoration. Oral hygiene appears satisfactory, plaque accumulation is limited and the prosthetic design is accessible for cleaning. Conventional advice has been reinforced, professional maintenance provided and yet inflammation continues to recur.

At this point, rEBD asks a different kind of question.

Rather than assuming inadequate plaque control is the sole explanation, the clinician pauses to explore broader possibilities:

- › Is biofilm quantity truly the main driver or is biofilm composition more relevant?
- › Could host inflammatory burden or systemic low-grade inflammation be amplifying the local response?
- › Do implant surface characteristics, emergence profile or prosthetic contours contribute to plaque retention or altered tissue interaction?
- › What does current evidence suggest regarding adjunctive therapies, local antimicrobials or biologically active agents?
- › Are there patient-specific behavioural, metabolic or immunological factors that standard maintenance protocols fail to address?

What began as a recurring clinical observation is transformed into a focused scientific inquiry.

The clinician moves from “Why is this happening again?” to “What evidence can better explain what I am observing?”

This is rEBD in practice:

observation → structured question → targeted evidence search → refined patient-centred management

In this way, chairside frustration becomes an opportunity for deeper understanding — and, ultimately, better care.



rEBD WAS CONCEIVED AS A WAY TO BRIDGE THE GAP BETWEEN EVERYDAY PRACTICE AND SCIENTIFIC INQUIRY, CREATING A MORE DYNAMIC DIALOGUE BETWEEN OBSERVATION AND EVIDENCE”

clinicians already encounter in everyday practice; not abstract theoretical problems but recurring chairside observations that deserve closer scientific attention.

Periodontal inflammation beyond the mouth

One example is the growing recognition that periodontal inflammation may extend beyond local oral tissues and interact with broader systemic pathways. Increasing evidence has linked periodontal inflammatory burden with markers of systemic inflammation, glycaemic control and cardiovascular risk profiles, encouraging a more integrated view of oral health within general healthcare.² For clinicians, this changes the conversation: periodontal assessment is no longer only about pocket depth or bleeding scores, but potentially about quantifying inflammatory burden in ways that improve interdisciplinary communication, patient motivation, and preventive care planning.

rEBD begins with a familiar clinical observation and asks the next scientific question: how can we measure and communicate this relationship more meaningfully?

Artificial intelligence and clinical reasoning

A second example concerns the rapid integration of artificial intelligence into dentistry. From radiographic



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interpretation and digital planning to workflow automation and decision-support tools, AI is increasingly shaping clinical environments. Yet adoption itself is not evidence of benefit. Emerging educational and translational experience suggests that AI-assisted interpretation may influence clinical judgement, enhance diagnostic confidence and support less experienced clinicians – while also highlighting the well-recognised risk of automation bias.⁷

rEBD offers a practical filter here: not simply should we use AI, but how does AI influence our judgement and under what conditions does it genuinely improve care?

Prevention, biologics and minimally invasive care

A third area lies in preventive and biologically supportive dentistry. Whether considering bioactive agents, remineralisation strategies, low-intervention protocols, naturally derived therapeutic compounds or evolving implant biomaterials and surface technologies, clinicians are increasingly confronted with approaches that appear promising in practice before their mechanisms are fully understood.

Emerging evidence on biologically active materials – including antimicrobial natural compounds such as honey-derived systems – together with ongoing investigation into implant macro-morphology and surface characteristics, illustrates how long-observed clinical effects can stimulate new scientific questions when approached critically.^{8,9} In this way, rEBD reminds us that innovation is not always entirely new; sometimes it is familiar practice finally understood through stronger evidence.

From reflection to research: the opportunity for Ireland and Northern Ireland

They are particularly well positioned to translate the principles of rEBD into meaningful clinical and professional progress. Few healthcare systems combine such a strong culture of evidence-informed guidance, reflective professional development, structured clinical audit and practice-based research. Through the work of the various programmes, continuing professional development frameworks and collaborative research initiatives across primary care, dentistry already possesses many of the foundations that rEBD requires; clinicians who observe critically, question constructively and continuously refine care through evidence and reflection.^{5,6}

A practical next step may be surprisingly simple; transforming recurring chairside observations into structured clinical questions capable of generating meaningful evidence. Whether investigating periodontal inflammatory burden, evaluating AI-assisted diagnostic workflows or refining prevention-focused care pathways, clinicians are exceptionally well placed to contribute directly to the next generation of evidence-informed dentistry. In this sense, rEBD is not merely a conceptual framework; it is a practical bridge between everyday clinical observation and purposeful research.

Dentistry 5.0: why rEBD fits the future

Dentistry is entering a new era, increasingly shaped by artificial intelligence, digital workflows, bioengineering, personalised prevention and translational science. Yet innovation alone does not automatically translate into better care. New technologies may be adopted prematurely, interpreted uncritically or integrated without sufficient understanding of their true clinical value in everyday practice.^{3,7}

This is precisely where rEBD becomes especially valuable. It functions as an analytical filter; a disciplined way of asking not simply: 'What is new?', but rather: 'What is genuinely useful, for whom and under what clinical circumstances?'

By linking innovation to clinical observation, scientific validation and reflective implementation, rEBD aligns naturally with the broader vision of Dentistry 5.0; a future in which technology supports professional judgement, strengthens patient-centred care and enhances clinical reasoning rather than replacing it.

One question every clinician can ask tomorrow

rEBD does not ask clinicians to move away from evidence, it invites them to engage with it more actively, beginning from the realities of everyday clinical care. Meaningful research questions do not always emerge from laboratories, policy papers or conference stages; often, they begin quietly at chairside, in the repeated observations that shape professional judgement over time.

A practical challenge for the months ahead is simple; choose one recurring clinical decision in your daily work – whether related to periodontal care, prevention, referral pathways or digital technologies – and ask: What evidence truly supports this approach in my patients, in my practice and in my clinical setting? That is not merely a reflective question; it is where Reverse Evidence-Based Dentistry begins.

Andrea Mascolo is Academic Director, European Institute for Medical Studies (EIMS), Malta and Full Professor of Digital Dentistry and Innovative Clinical Training, Grigol Robakidze University, Georgia.

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WHEN STRESS LEADS TO DISTRESS AND BURNOUT

When the demands that people face outstrip the resources they have to meet them, a crisis arrives

IN the 'old days', which I refer to as BC (Before COVID-19) I used to take my one-man show around British Dental Association (BDA) sections, specialist groups and anyone else who would give me supper and listen to the story of my burnout and how I came out the other side. Judging from the post-presentation conversations on the night or, in the days, weeks and months that followed, the title and content of the evening, *Is Dentistry Making You Sick?*, appeared to resonate with many listeners.

Sadly, the challenges that individuals in dentistry face have not gone away. The phrase "Dentistry is tough" that I once used in an article and was flattered to be quoted by the incoming BDA President, Dr Roz McMullan OBE, in her inaugural address, applies even more today.

The causes are not limited to the clinical elements of our roles, which are, like most professions, constantly evolving and changing, usually for the better for our patients. Rather, I do believe that we suffer from the increasing external pressures that are indirectly related to the jobs. These include, but are certainly not limited to, societal expectations, social media, political instability, the threats and/or promises of Artificial Intelligence – and that is just today's headlines.

A recent conversation with a client who, on the face of things, has a successful practice is typical of what I routinely hear. Although they are busy, popular and successful (on many measures) they told me that the anxiety they felt every day has got to a point where they have difficulty getting out of the door to go to work in the morning.

Certainly, that chimed with my personal experience where I endured a significant panic attack, which I believed when it was happening was possibly a heart attack or a stroke, left me stopped at the side of the road literally unable to continue my drive to work. The team that worked with me at my small and, if not exactly perfect, then well formed, practice were not in the least surprised that

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. alunrees@mac.com

I was ill. Make no mistake, when stress becomes distress, it makes you ill with a sickness that you must acknowledge and face. It is more than a 'fed up – have a duvet day' situation.

Firstly, I had to admit I was not superman, then I needed to examine what was going on and why I had become ill. Stress is normal and can be defined as 'the non-specific response of the body to any demand'. It is part of life; we are supposed to feel stress and react accordingly. What is not normal is 'burnout'; defined as "a state of vital exhaustion".

Hans Selye, the physiologist and physician, published his findings on research into hormones in nature as long ago as 1938. He described GAS (the General Adaptation Syndrome) where our first reaction is fight, flight or freeze. The next stage is adaption or resistance, and then a return to the baseline. However, if stress is repeated beyond our capability of adaptation it leads to exhaustion and, in animals, to their death.

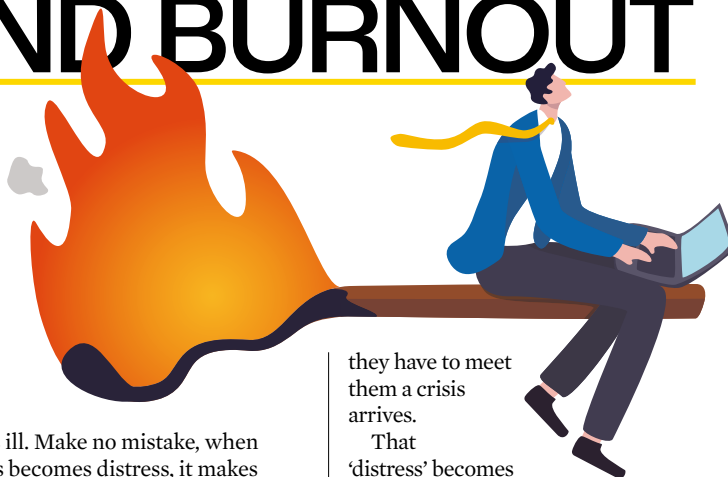
Selye acknowledged that some stress, which he called eustress (from the Greek prefix eu, meaning good) was good. It motivates and brings short-term focus, we can cope, it may feel exciting and it often improves performance. On the other hand, distress is negative, causes anxiety, is both unpleasant and outside our coping mechanism. It decreases performance and can eventually lead to mental and physical problems.

Workplace stress can lead to distress for many of us when our workload and time pressure are governed by someone, or something, else, when there is a conflict in our roles, a lack of autonomy or we are not in control of our decisions. Ultimately when the demands that people face outstrip the resources

they have to meet them a crisis arrives.

That 'distress' becomes our old friend (not) 'burnout', which has three dimensions; emotional exhaustion, depersonalisation and reduced personal accomplishment. The first time I became aware of this third factor was as an Associate when my principal was, with hindsight, unable to complete any paperwork; vital in those days to claim for treatments completed. He would sit at his desk in the evening and stare at the mound of notes and forms and achieve nothing, poor soul. But it is the emotional exhaustion manifesting itself as feeling used up, unable to concentrate, easily upset, frequent sickness and problems sleeping which causes much harm. The individual often cannot move forward, nor can they see a way out, and often they refuse to admit that there is anything wrong or that there could possibly be a way out. Make no mistake, without change the individual is driving down a blind alley where they will run out fuel or they will hit the end wall; either way there will need to be a reckoning after the crisis.

I was fortunate, my GP was on leave and his locum told me how he had given up his career path as a neurosurgeon. His epiphany came one morning when, instead of continuing his drive to work at Addenbrooke's Hospital, he wanted to drive his car into a Fenland dyke. He laid it on the line that a day or two off was not enough and, for the first and last time in my career I took sick leave and claimed on my illness cover. A fortnight later I returned on my own terms, to my own practice. The changes I made meant that I enjoyed my last five years in practice far more, but they also led to my changing course in career to assisting others prevent the crisis that I endured.



Microsurgical treatment of deep maxillary Class II trifurcation defects combining root resection and guided tissue regeneration

Ana Motta

Interradicular osseous defects occurring between the roots of multirooted teeth pose a significant challenge in periodontology. These defects may result from disease or trauma and are classified as bifurcation or trifurcation defects, depending on the number of roots involved. Their prevalence appears to be similar across genders but are most commonly observed in maxillary molars^{1,2}.

Diagnosis is based on the extent of horizontal bone loss, which guides treatment planning. Class I defects (<3 mm) usually respond to non-surgical periodontal therapy (NSPT). However, Class II defects (≥3 mm without complete furcal involvement) and Class III defects (complete through-and-through involvement) are significantly more challenging, particularly trifurcations in maxillary molars.³ In these cases, the confined interradicular space limits both instrumentation and visibility, often necessitating surgical intervention⁴.

Surgical treatment may follow regenerative or resective strategies. Regenerative techniques, favoured in the literature⁵, including guided tissue regeneration (GTR), aim to restore periodontal structures – cementum, periodontal ligament and alveolar bone – using membranes, grafts, and biologic mediators^{6,7,8}. However, when defect morphology limits surgical access or the potential for regeneration, resective procedures such as root resection and tunnelling become necessary⁹. Although these procedures facilitate effective hygiene and long-term maintenance, they may result in some tissue volume loss¹⁰.

In this context, minimally invasive periodontal microsurgery – incorporating magnification,

microsurgical instruments, and delicate techniques – enhances surgical precision, reduces tissue trauma, and improves wound stability, thus increasing the predictability of treatment outcomes^{10,11}. This case series aims to illustrate the benefits of combining resective and regenerative microsurgical techniques in the treatment of maxillary molars with deep Class II trifurcation defects.

Representative cases of trifurcation defects in maxillary molars resulting from periodontal disease were selected from patients treated at a private endodontics and periodontics practice between October 2020 and May 2025. Clinical data and images were obtained from the patients' electronic health record and the image database. Risk assessments were discussed among the treating dentists and the patients.

The patients underwent microsurgical procedures performed under a dental operating microscope (OPMI MD, Zeiss, Oberkochen, Germany), equipped with high-resolution photography accessories. Following local infiltrative anaesthesia, a buccal triangular mucoperiosteal flap was elevated to achieve complete exposure of the cortical bone.

Osteotomy was performed using surgical burs and manual micro chisels, and root resection was carried out with ultrasonic tips. After thorough curettage of granulomatous tissue and inspection of the alveolus, guided tissue regeneration was performed using EDTA 24% and enamel matrix derivative for root surface conditioning, heterologous bone graft placement using a bone curette, and positioning of a collagen membrane without fixation methods. Sling 6-0 polypropylene micro-sutures were placed along the sulcular margin, and interrupted sutures were used for the vertical releasing incision. Post-operative care included the use of an antimicrobial mouth rinse (0.12% chlorhexidine,

twice a day for a week), analgesics (dipyrone 1000 mg, three times a day for three days), and anti-inflammatory medication (dexamethasone 4 mg, twice a day for two days in Cases 1 and 2, or naproxen 500 mg, twice a day for five days in Case 3). Antibiotic therapy consisted of azithromycin 500 mg for five days, starting one hour prior to surgery. Additionally, photobiomodulation (Therapy XT, DMC, São Carlos, Brazil) was applied daily for the first three days (808 nm and 660 nm, 100 mW, 2J per point, four points), followed by weekly sessions for one month (660 nm, 100mW, 2J per point, four points).

In each case, informed consent was obtained from the patient for publication of the case details. This case series has been reported in line with the PROCESS Guideline¹² and received approval from the institutional ethics committee (CAAE: 91922825.4.0000.5419).

Case 1

A 55-year-old female patient was referred for evaluation of an interradicular radiolucent area in tooth 17, identified on a routine radiograph, with no reported complaint. The patient was asymptomatic, and clinical and radiographic examinations revealed excellent oral health and biofilm control. Tooth 17 exhibited a furcation radiolucency (Figure 1A, page 26), a positive pulp vitality response, Grade I mobility, bleeding on probing, occlusal trauma, a probing depth of 8 mm in the mesiopalatal furcation and no evidence of purulent exudate. Her medical history revealed no systemic condition.

Initial treatment consisted of occlusal adjustments and full-mouth dental prophylaxis, followed by NSPT on tooth 17, performed under magnification, with the use of enamel matrix derivative. The patient was then placed on regular supportive periodontal care (SPC) every three months. After two years



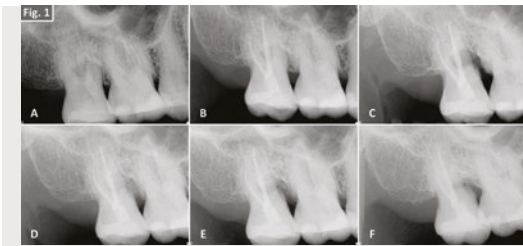


Figure 1: (Case 1) Periapical radiograph showing a radiolucent lesion in the furcation region of tooth 17 (A) and post-root canal treatment (B). Intra-operative radiograph following the mesiobuccal root resection of tooth 17 (C). Immediate postoperative radiograph after guided tissue regeneration (D). Radiographs at one month (E) and four years (F), demonstrating bone remodelling and tooth preservation.



Figure 2: Initial CBCT examination (sagittal, coronal, axial), showing a hypodense lesion in the furcation region of tooth 17 (arrows), suggestive of a periodontal infection.

of SPC, the patient showed reduced bleeding and probing depth, along with cessation of tooth mobility; however, radiographic evaluation showed persistence of the lesion. A cone-beam computed tomography (CBCT) scan was performed, showing an extensive Class II furcation lesion involving the trifurcation region of the roots of tooth 17 (Figure 2), as well as a small amount of calculus on the mesiobuccal root. Considering the patient's optimal oral health and her desire to retain the affected tooth, a conservative surgical approach was pursued, consisting of mesiobuccal root resection combined with furcation regenerative therapy to improve the prognosis. Initial CBCT examination (sagittal, coronal, axial), showing a hypodense lesion in the furcation region of tooth 17 (arrows), suggestive of a periodontal infection.

Endodontic treatment was completed for tooth 17 (Figure 1B), performed pre-emptively in anticipation of the mesiobuccal root resection to facilitate surgical access. During the microsurgical procedure (Figure 1C-D) and Figure 3A-H) granulomatous tissue was observed in the trifurcation area. After root resection and debridement of the remaining roots, biomaterials for GTR were placed (Figure 3F-G). Short- and long-term follow-ups (four years) showed progressive and complete tissue repair, resolution of periodontal infection, furcation closure and absence of mobility (Figure 1E-F and Figure 3I-L).

Case 2

A 64-year-old female patient was referred due to a radiolucent lesion around the distobuccal root of tooth 16. Upon clinical, radiographic and tomographic evaluation, tooth 16 presented a very large Class II furcation lesion, bleeding on probing, and a probing depth of approximately 9 mm, with no evidence of tooth mobility (Figure 4A and, on page 28, Figure 5). Teeth 17 and 16 had a history of endodontic treatment. The patient was asymptomatic, exhibited generally good oral health and reported no systemic conditions. Initial treatment included

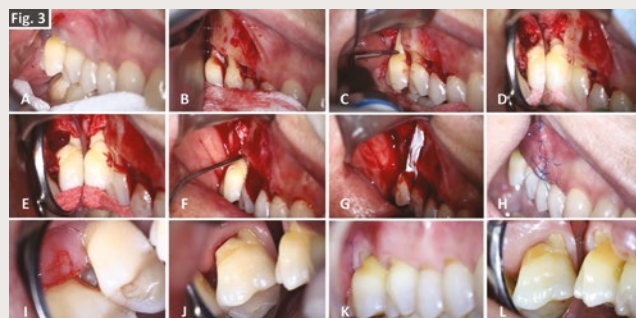


Figure 3: Pre-operative buccal view (A). Cortical bone exposure (B). Mesiobuccal root resection of tooth 17 with an ultrasonic tip (C). Exposure of granulomatous tissue in the furcation region of tooth 17 (mirror view) (D). Buccal view after furcation debridement (mirror view) (E). Placement of enamel matrix derivative and bone graft (F). Collagen membrane over graft (G). Immediate post-operative buccal view without mirror (H) and with mirror at one week (I) and one month (J) post-operatively, respectively. Buccal views without mirror (K) and with mirror (L) at four years post-operatively, showing excellent sealing of furcation region.

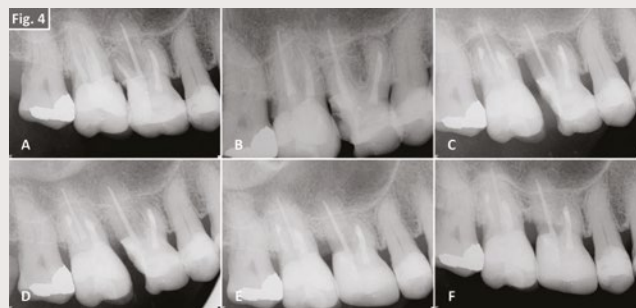


Figure 4: Periapical radiograph showing a radiolucent lesion surrounding the distobuccal root and furcation region of tooth 16 (A). Periapical radiograph after selective palatal root canal retreatment of tooth 16 (B). Intra-operative radiograph following the distobuccal root resection of tooth 16, along with apicoectomy, retro-preparation and retro-filling of the remaining buccal canals of teeth 17 and 16 (C). Immediate postoperative radiograph after guided tissue regeneration (D). Radiograph four months (E) and 27 months (F), highlighting sustained healing and bone regeneration.

full-mouth dental prophylaxis, NSPT in the upper right quadrant, followed by SPC every four months. After three years, the patient was indicated for restorative procedures on teeth 17 and 16; however, due to persistent infection, surgical intervention was recommended prior to the restorative phase. Selective endodontic retreatment was performed on the palatal root for tooth 17 (Figure 4B) followed by a microsurgical procedure (Figure 4C-D and Figure 6A-H), which included distobuccal root resection of tooth 16, and endodontic microsurgery (apicoectomy/retro-preparation/retro-filling) on the

remaining buccal roots of teeth 17 and 16.

Following GTR (Figure 6E-G), the vestibular flap was apically split to allow slight coronal advancement. A provisional restoration in the interproximal area was immediately placed to aid in biomaterial retention and to support stabilisation of the transient post-surgical tooth mobility.

The patient showed both radiographic and clinical resolution of the infection (Figure 4E-F and Figure 6I-L). At 27 months post-operatively, she remains asymptomatic, with good biofilm control, preservation of tissue

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volume, and a healthy, restored periodontal status.

Discussion

Class II and III furcation defects, particularly in maxillary molars, are strongly associated with increased risks of tooth loss due to their anatomical complexity, which limits access and reduces the effectiveness of non-surgical debridement, ultimately contributing to persistent inflammation and disease progression^{13,14,15}. Consequently, surgical intervention is often indicated for advanced furcation lesions, offering improved clinical outcomes¹⁶. In light of these considerations, these cases describe a microsurgical approach for the management of deep Class II furcations in maxillary molars through the combined use of buccal root resection and guided tissue regeneration.

All patients required an interdisciplinary approach integrating periodontal, endodontic and restorative principles¹⁸. They had previously undergone non-surgical periodontal therapy without sufficient improvement, presenting with persistent pockets ≥ 6 mm, a condition previously associated with lower success rates of NSPT¹⁴. They were non-smokers, systemically healthy, highly motivated and demonstrated good plaque control, all of which are well-established predictors of favourable regenerative outcomes^{16,19}. Following Jacobs et al. (2024), CBCT examination was used pre-operatively to assess bone architecture, root anatomy, and treatment history, thereby improving diagnostic accuracy and treatment planning²⁰.

Historically, procedures such as tunnelling and root resection have been employed for advanced furcation defects. Tunnelling, typically used in mandibular molars, improves access for hygiene but requires ideal root anatomy and high patient compliance; otherwise, complications such as root caries may arise¹⁵. Root resection involves removing a compromised root while preserving others to maintain function. Though technically demanding and associated with risks such as fractures and endodontic complications, root resection alone remains viable in carefully selected cases, including maxillary molars.^{18,21}

In contrast to these traditional methods, regenerative approaches have gained prominence due to their superior clinical outcomes. GTR enhances bone fill and reestablishes



Figure 5: Initial CBCT examination (sagittal, coronal, axial), showing a large interradicular hypodense lesion within the furcation region of tooth 16 (arrows), suggestive of periodontal infection. Thickening of the sinus membrane is also evident.

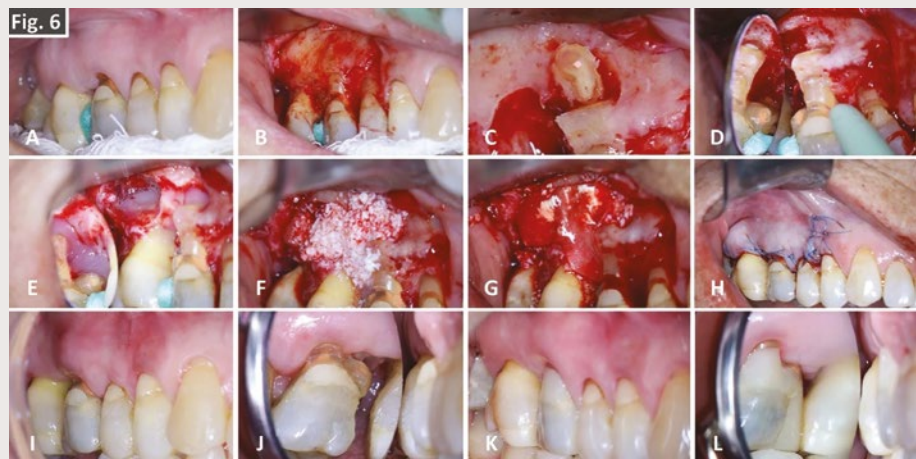


Figure 6: Pre-operative buccal view (A). Cortical bone exposure (B). Mesio buccal apex of tooth 16, post-apicoectomy, showing an untreated MB2 canal (C). Buccal view after distobuccal root resection, mesio buccal root retro-filling, and root/furcation debridement of tooth 16 (mirror view) (D). Placement of enamel matrix derivative (mirror view) (E). Bone graft placement (F). Collagen membrane over graft (G). Immediate postoperative view (H). Buccal view at two weeks postoperatively without mirror (I) and with mirror (J), showing soft tissue closure, albeit distant from root end. Buccal view at 27 months post-operatively without mirror (K) and with mirror (L), showing complete sealing of furcation region, in contrast to Figure 6I.

periodontal architecture, becoming the preferred treatment over resective surgery or extraction for Class II in both mandibular and maxillary molars^{16,17,22}. However, depending on the depth and configuration of the lesion, access for regenerative therapy may also be restricted²¹.

In our cases, although the lesions extended palatally, the palatal roots showed favourable attachment levels and regenerative potential, which may explain the absent or mild tooth mobility observed at baseline and justified their preservation. The buccal roots, however, were also compromised and contributed to the complexity of the defect. Their strategic removal facilitated surgical access and visibility and simplified the defect configuration.

Tooth mobility increased slightly in the immediate postoperative period – likely due to surgical manipulation and transient periodontal support alterations – but resolved completely during long-term follow-up. To further support healing and regenerative success, and to avoid potential drawbacks such as soft tissue recession, papilla loss and post-operative bone resorption – which are inherent to flap elevation – the protocol incorporated microsurgical principles.

Magnification, micro instruments, minimal incisions, and primary wound closure are associated with reduced trauma and better soft tissue preservation^{10,23}. Additionally, photo-biomodulation was applied post-operatively to enhance healing and minimise discomfort, and the patients were enrolled in a structured SPC programme, which played an important role in maintaining outcomes^{19,24,25}.

Ultimately, when combined with regenerative techniques, this minimally invasive approach aligned with our patients' values and expectations – particularly since advanced furcation defects are often asymptomatic and discovered incidentally^{26,27}. Treatment proposals involving tooth extraction or complex rehabilitations may cause emotional distress and hesitation²⁸.²⁹ When appropriately selected and managed, preserving compromised teeth has proven to be a valuable alternative to dental implants in posterior regions, especially considering the potential risks of peri-implantitis, extended healing periods, higher overall treatment costs, and the comparable long-term survival rates.^{30,31}

Conclusions, references and citation

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'MY AMBITION IS TO DO WHATEVER IT TAKES TO UPSKILL DENTISTS IN THE UK'

A Q&A with implant surgeon Dr Abdul Osman D.M.D M.Sc PGdip PGcert MInstLM

Dr Abdul Osman is a recognised leader in immediate loading implant surgery and full arch restorations. He is the founder of Face Dental in Coventry and integrates the latest digital technologies into his practices (which now have more than 65 members of staff). Dr Osman completed the world-renowned advanced surgical master's programme in bone regeneration with Professor Istvan Urban. He also speaks regularly at national and international events including the International Team of Implantology (ITI) annual meeting, the British Academy of Implant and Restorative Dentistry (BAIRD) events and lectures in the Far East and UAE.



Dr Abdul Osman

WHAT IS YOUR PRIME AMBITION THIS YEAR?

Countries like the US, Portugal or Brazil have the most incredible dentists who achieve outstanding skill levels and outcomes in implantology. In the UK, we complain that patients are drawn by the promise of cheaper treatment abroad to the detriment of quality and long-term results, but not much seems to be happening to remedy this. We desperately need to raise the standard of care, and I strongly encourage dental practitioners to consider implementing complex full arch reconstruction into their skillsets. With the right level of training and mentoring, the skills can be learnt with ease, and safely. My ambition is to teach more dentists to elevate their skills to be able to offer this treatment modality.

DO YOU BELIEVE THAT IMPLANTOLOGY CAN BE ACCESSIBLE TO ALL, REGARDLESS OF THE SIZE AND CONFIGURATION OF THE DENTAL PRACTICE?

Absolutely! So long as you have the thirst to grow yourself, every dentist can consider treating with dental implants, including more complex full arch rehabilitation cases. To that effect, we have put together a full arch immediate load educational programme called 'ReBuilt' which underlines our enduring commitment to rebuild patients' confidence in their smiles, with high consideration for the architecture, biology, and complex full arch implant dentistry at the heart of it.

ReBuilt covers fundamentals including basic planning, anatomical considerations, FP1 and FP3, scanning and printing solutions, case selection, clinical protocols, ethical sales and communication, and the patient journey. Once the foundation of ReBuilt has been fully mastered, the programme takes delegates into

elite territory, with more focus on the different types of patients who can be treated with implants, and more complex aesthetic demands, including more strategies for achieving predictable, successful outcomes.

ReBuilt has been curated to help individuals master the art of full arch rehabilitation which they can then carry out, either single-handedly or with a team approach, from start to finish. The programme also goes through various alternatives to the need to invest in high-cost digital infrastructures, involving lab technicians utilising their own equipment and holding people's hands through the whole process. We also touch on the extra-oral technology of photogrammetry which has revolutionised full arch dentistry achieving unmatched precision and efficiency.

CAN ANYONE ASPIRE TO COMPLETE REBUILT AND GET TO YOUR LEVEL?

To become a dentist, one needs to sacrifice a lot. Going into full arch rehabilitation is just another jump, but the correct approach is to go through the ABC and not go straight to Z. That requires a certificate, diploma or masters in implantology, some examined evidence-based education and mentoring to access further guidance. My ReBuilt educational programme is reasonably priced and is often cheaper than most courses, as I want full arch rehabilitation to be an attractive prospect, accessible to as many people as possible. I am very lucky to know some of the best implantology mentors in the world who are happy to join me and help dentists elevate their levels and positively transform the UK implant landscape.

WHAT ARE THE CHALLENGES OF FULL ARCH REHABILITATION?

Money-driven implantology can be a temptation for some. I have seen far too many cases where healthy teeth had been extracted to place implants. The decision to render a patient edentulous should be thoroughly and carefully evaluated. Patients have high expectations. Patients undergoing full-arch rehabilitation to replace the terminal dentition are typically charged well over £20,000 for a case. Their expectations are therefore very high, and dentists need to master the art of designing stable tissue, with long-term aesthetics and outcomes that remain sustainable 5-10 years later.

Oral hygiene is obviously a major challenge too. In my practice, we incorporate strategies that enhance the predictability and success of implant treatments. These comprise multiple

consultations and incorporate a process called motivational interviewing to gauge if patients are ready to take the next step. As part of their treatment plan, I also provide my patients with a Curaprox toothbrush and Philips Power Flosser with instructions on how and where to clean. I also discuss their general systemic health and any lifestyle-related factors that could negatively impact treatment – if they smoke, they receive cessation advice. I explain that without addressing these, they are likely to experience poor implant stability or the higher likelihood of peri-implant complications. I communicate this to their GPs or consultants so we can work on behavioural change in parallel. A lifelong membership plan involving my preventative team and hygienist is also a *sine qua non* to go ahead with the rehabilitation.

WHAT PRODUCTS DO YOU USE AND WHY?

I have been an advocate of the implant manufacturer bredent for a number of years now. I place copaSKY implants and they deliver the ultimate blend of primary stability, restorative aesthetics and a reliable prosthetic connection. With bredent, I feel valued, constantly supported and I can even talk to the CEO of the company and any other key members of the team whenever I need it. It is a people company, and that is how we can make considerable advancements, collaboratively.

HOW EXCITED ARE YOU ABOUT THE FUTURE OF IMPLANTOLOGY?

With new requirements come more advancements driven by materials science and digital technology, resulting in significantly enhanced implant success and longevity. Implants integrate faster, scans are quicker, and amazing patient software like the AI-powered video simulation Smilecloud which has become available more recently. Dentistry is evolving at such a fast speed that the possibilities are endless.

WHERE CAN WE LEARN MORE ABOUT REBUILT?

I presented a webinar last April: tinyurl.com/bddhay3j to inspire my peers to build on their skills, feel more confident about their potential and to consider complex full arch reconstruction. Delegates were navigated through a number of aspects including the suitability of cases, where to put the implants, how to scan, how to design teeth, how to print, and learning how to fit the implants properly. Feel free to check my next courses here:

www.osmantrainingacademy.co.uk

Bone Growth Concept



Bone Growth Concept

The right combination of shape, surface characteristics and positioning of an implant leads to the growth of bone on the backtaper, as scientific research and



Backtaper -

The evolution of Platform-Switch

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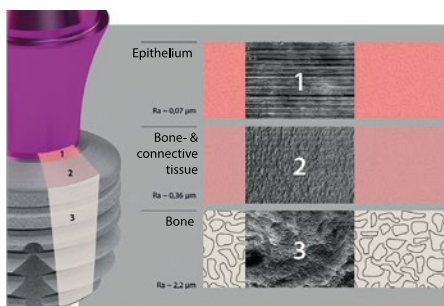


Subcrestal positioning

Clinical experience has shown that the additional space created by the backtaper, could be increased by subcrestal positioning of the copaSKY implant. The slim concave-shaped abutments provide more space for soft tissue attachment and bone growth on the backtaper. This has been confirmed in a recent multicenter clinical

Microstructured surface

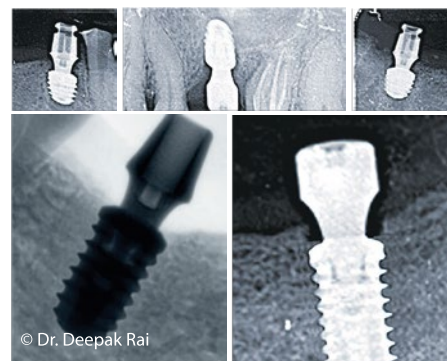
The microstructured surface of the backtaper supports the attachment of bone and connective tissue. When the edge of the backtaper is positioned subcrestally, there is the possibility of depositing bone chips on it, thereby preventing the ingrowth of soft tissue and offering additional support for osseointegration. Thanks to the minimalist design of the cover screw, the peri-implant tissue around the backtaper is not irritated during re-opening. Any new bone formed on the anodized cover screw can be easily removed with a sharp excavator.



Impressive clinical results

The results observed by the clinicians are persuasive. Regardless of the clinical indication, new bone formation can be observed, from single-tooth restoration to the rehabilitation of edentulous jaws according to the SKY fast & fixed therapy. The vertical dimension of the alveolar ridge is preserved through the newly formed bone on the backtaper because there is reduced indication for bone levelling.

The Bone Growth Concept is precisely the further development of the Platform-Switch: the implant and abutment design, the microstructured backtaper and the subcrestal positioning of the copaSKY implants, synergistically not only prevent bone resorption but also reliably support the formation of new bone which completely encloses the implant. Contact us today to find out more about the Bone Growth Concept.



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Bone Growth Concept

- Backtaper – gives more space to the bone and soft tissue
- Microstructured surface – supports osseointegration and the attachment of connective tissue
- Subcrestal positioning – promotes bone growth

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WHAT DOES EBITDA MEAN FOR THE SALE OF YOUR DENTAL BUSINESS?

By Cathy Murphy, Senior Business Agent – Dental, Christie & Co

If you are selling your dental business, you are likely to come across a plethora of financial jargon, which can sometimes feel like learning a new language.

One such term is EBITDA, which stands for Earnings Before Interest, Taxes, Depreciation and Amortisation.

Put simply, EBITDA is a measure of how much profit a business generates from its day-to-day operations, before the impact of financing decisions, tax structures and certain non-cash accounting items. It helps buyers, lenders and valuers understand a practice's trading performance without distortion from factors that can vary significantly between owners.

EBITDA removes the effect of:

- Interest, which depends on how a business is financed
- Taxes, which vary based on ownership structure and personal circumstances
- Depreciation, which reflects the age and accounting treatment of equipment



- Amortisation, which relates to the accounting value of goodwill and other intangible assets
- By stripping out these items, EBITDA provides a clearer view of a dental practice's underlying operational profitability.

HOW IS EBITDA CALCULATED?

The basic formula is:

$$\text{EBITDA} = \text{Net Profit} + \text{Interest} + \text{Taxes} + \text{Depreciation} + \text{Amortisation}$$

To calculate EBITDA, the starting point is the profit and loss account within the practice's year end accounts. From there, your agent will typically help review and normalise the figure by adjusting for one off, exceptional or owner specific items to reflect the true, sustainable earnings of the business.

HOW IS EBITDA USED IN THE DENTAL SECTOR?

Dental practices are commonly valued for secured lending,

transactional and sale purposes using the profits method, expressed as a Years Purchase (YP) multiplier, alongside analysis of comparable sales.

This involves applying a YP multiple to the practice's EBITDA. The multiple applied will vary depending on factors such as the nature of the business, quality of provision, location, operational strength and prevailing market conditions.

Understanding EBITDA is therefore fundamental when preparing a dental practice for sale, acquisition or formal valuation, as it underpins how businesses are assessed and compared across the sector.

If you would like help calculating your EBITDA or understanding what your practice may be worth, get in touch:

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> DENTALLY



EXPLORING THE FUTURE OF STRESS-FREE DENTISTRY

AS dental practices face growing operational, workforce and financial pressures, Dentally recently brought together some of the profession's leading voices to explore the question; how do you build a successful practice without burning out the people running it? Among the speakers at Dentally Live was Loven Ganeswaran, dentist, owner of Sunninghill Clinic and CEO of Chairsyde. His mission is to help patients understand their health and make informed decisions about their care; a challenge he believes sits at the heart of many of dentistry's wider frustrations.

"The real problem in dentistry isn't clinical skill," he said. "It's translation. Brilliant clinicians lose patients every day because the system was never designed to help people understand their own health." Attendees were among the first to receive Dentally's new 'Designing a Stress-Free Practice' guide, developed using insights from more than 700 dental professionals across the UK, Australia and Canada. The guide examines the realities of modern practice life and offers practical recommendations to help practices protect time, support teams, strengthen leadership, improve consistency and create more connected ways of working.

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> PATIENT PLAN DIRECT **PatientPlanDirect**

REPORT EXPLORES SHIFT AWAY FROM NHS DENTISTRY

A report from Patient Plan Direct (PPD), *State of NHS Conversion 2026*, examines the financial, operational and personal factors shaping NHS to private conversion, helping build a clearer picture of what the transition can look like and why increasing numbers of practices are exploring alternative models of care.

Among its conclusions, PPD's long-term conversion data suggests practices often require a much smaller proportion of their NHS patient base than many expect to support a viable private model, with around 40% patient retention frequently sufficient depending on practice structure and patient demographics. PPD's findings also show that 70% of conversions take place as full-practice transitions, while 30% follow a phased or clinician-led approach, with almost a third of phased conversions later progressing to full conversion within two years. Conversion timelines are continuing to shorten, with practices PPD has supported through conversion now reaching target plan patient numbers in an average of seven weeks, compared with 11 weeks three years ago.

Read the full article here: www.sdmag.co.uk/ppd-state-of-nhs-conversion-2026

Download the report here: www.patientplandirect.com/report

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