

CONNECTING DENTAL TECHNOLOGY

Laboratory

FMC CONNECTING DENTISTRY

Spring 2024 / Volume 18 / No 1



PRECISION REALISM COHESION

A natural blend of meticulous craftsmanship and patient-centred care [p.17](#)

Redefining auricular prosthesis [p.14](#)

Are regulators turning a blind eye to illegal dentistry? [p.40](#)

The key to running a successful lab [p.47](#)

TWO HOURS' ENHANCED CPD INSIDE THIS ISSUE



More at once



Gain the power
of dual model
scanning

Minimize hands-on time with the intuitive place-and-scan design. Provide a complete range of quality services to your clinics with ease.

Stay on top of your caseload with fast automated scan-to-design workflows. More efficiency. More versatility. More speed.

www.3shape.com/f8



Book a Free Demo

Making progress

MATT EVERATT

Editor-in-chief

Hello all and welcome to the first *Laboratory* issue of 2024!

So, what does this year have in store for dental technology?

I will start with a huge dose of optimism. In 2023, all of us involved in *Laboratory*, including the editorial board and the FMC events team, have worked tirelessly to raise the profile of dental technology, dental technicians and clinical dental technicians. We had categories added to the Clinical Dentistry Awards and Dentistry Awards, and we also saw the introduction of *Laboratory*'s Leading 20 list, showcasing the industry's leading and influential people in dental technology. All of these helped put us up front and centre with the rest of the dental team, and rightly so.

I want to thank all of labs and technicians who took that step to get involved and enter the awards. The entrants and winners were incredible. I was told by one of the judges, 'the bar has been set very, very high'. Roll on 2024 awards.

THE TOUGH TOPICS

In this quarter's publication you will find two intense, but important, articles: one discussing the decline in

the number of registered dental technicians and the other on illegal manufacture. The latter article has been pulled together over several years and discusses how the General Dental Council (GDC) regulates – or ignores – illegal manufacture.

Please take your time to read it. It is so important that all of us understand the current position. There are lots of questions that remain unanswered and many more questions we need to ask. There have been several hot discussions on social media, and we encourage you to help keep this topic alive.

THANK YOU

This issue is jam-packed full of amazing articles and features; I want to thank all of the contributors who have taken the time to pull these articles together.

I wish you all well for the incoming spring season.

Enjoy reading the wonderful articles, and please come back to me if you have any questions regarding the illegal manufacture article, or indeed if you would like to have any input on the subject going forward.



GET IN TOUCH

matt.everatt@fmc.co.uk

Laboratory

VOL 18 NO 1, SPRING 2024

Editor-in-chief Matt Everatt
matt.everatt@fmc.co.uk

Editor Lucy Veal
lucy.veal@fmc.co.uk +44 (0) 1923 851752

Advertising manager Craig Welling
craig.welling@fmc.co.uk +44 (0) 1923 851787

Designers Glenn Baxter and Nick Russell

Head of production Laurent Cabache
laurent.cabache@fmc.co.uk

Content director Guy Hiscott
guy.hiscott@fmc.co.uk

Content team Siobhan Hiscott, Rowan Thomas and Gaby Bissett

MISSION STATEMENT

Laboratory nurtures connection, passion and quality within the dental technician community by showcasing inspirational individuals, best practice and technical brilliance.

The publisher's written consent must be obtained before any part of this publication may be reproduced in any form whatsoever, including photocopies and information retrieval systems.

While every care has been taken in the preparation of this journal, the publisher cannot be held responsible for the accuracy of the information printed herein, or any consequence arising from it.

The views expressed herein are those of the author(s) and not necessarily the opinion of either *Laboratory* or the publisher.

Laboratory is printed by Buxton Press.

Subscription enquiries and back issues - 01923 851771 or email: subscriptions@fmc.co.uk

Finlayson Media Communications,
Hertford House, Farm Close, Shenley,
Hertfordshire WD7 9AB

© FMC 2024 All rights reserved.
ISSN NUMBER: 2053-5465



Plenty of room for positivity

We have been blown away by the level of support shown so far for Saving Grace – our campaign calling for fairer GDC regulation to prevent unnecessary removals from the register. With more than 1,500 signatures and counting, we are very keen to keep the conversation and momentum going as we strive for real change. So, if you can, please share our petition with colleagues and friends or get in touch to share your experience. You can find more information and hear different people's reasons for supporting the campaign on page 11.

Continuing the positivity, it was great to see so many members of the laboratory community come together to support the speakers at the recent Digital and Implant Dentistry Show. The event is getting bigger and better year-on-year, with increasing speakers and attendees from the dental technology field. Fortunately, the North of England Dentistry Show is just around the corner (9 March), with an entire lecture theatre dedicated to the technical aspects of modern dentistry. Find out more and register your (free!) attendance at dentistry.co.uk/north-of-england.

This issue's contributors have provided a wealth of advice, thought and perspective. You will find two particularly insightful, though potentially frightening, articles on pages 39 and 40 – one regarding the decline of technicians qualifying per year coupled with the average age of the current workforce, and the other questioning the regulation of illegal dental manufacture. Both of these critical topics urgently need addressing in the lab community. Things can change if the right people are listening, so let's make some noise.

If your team is feeling down about the current state of the profession, whether due to the slow death of NHS dentistry or the dire need for investment in dental technology education, there are many things your lab can do to create a more uplifting environment. On page 36, Sarah Jordan shares how she keeps her team motivated and content, including cuddling puppies and making good food.

There are certainly plenty of things to be positive about. On page 32, Giles Bradley looks back on his career and discusses why he believes the profession has changed for the better, a sentiment echoed by Tony Atkins on page 25 as he shares three lessons he has learned in his career.

And, of course, the case studies from Dan Shaw and Nina Frketin highlight the wonders of technical excellence and dedication to the pursuit of patient happiness – the motivation for so many in dental technology. Don't miss these CPD-verified articles on pages 14 and 16.

As always, please get in touch if you would like to contribute to a future issue – I'd love to hear from you!

LUCY VEAL
Editor of *Laboratory*



ENHANCED CPD

Complete this issue's enhanced CPD online at cpd.dentistry.co.uk or scan the QR code. Email cpdsupport@fmc.co.uk if you're in need of guidance.

FIND US ONLINE

@laboratory_dentistry facebook.com/LaboratoryDentistry [Laboratory Dentistry](https://www.linkedin.com/company/LaboratoryDentistry)



32



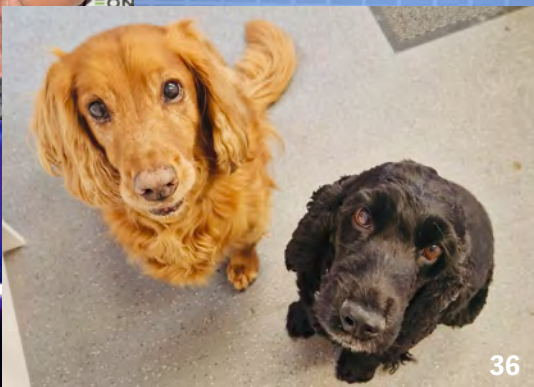
29



14



25



36

CONTENTS

Lab update

- 6 Presenting *Laboratory's* editorial board – the Lab Experts
- 8 The latest news from the profession
- 11 Calling for fairer GDC regulation
- 12 Launching the 2024 Dentistry Awards

Technical

- 14 Redefining auricular prosthesis
- 17 Complete denture fabrication

People and places

- 21 Ian Cumberland on becoming DLA president
- 22 First impressions from a dental technician
- 25 Lessons learned in the lab
- 29 Winning Best Clinical Dental Technician
- 32 A letter to my younger self

Life in the lab

- 35 Five things I can't work without
- 36 Promoting happiness in the lab
- 39 The curious demise of dental technicians
- 40 Are regulators turning a blind eye to illegal dentistry?

Business

- 45 Decoding digital marketing jargon – part two
- 47 It's all about communication

Industry innovations

- 49 Making waves in the industry
- 51 More intuitive workflows from CAD to CAM
- 52 The latest product news and updates
- 53 Achieving efficient prosthodontic workflows

Enhanced CPD

- 58 CPD questions

Laboratory's Lab Experts panel

Presenting **Laboratory's** editorial board – the Lab Experts helping to nurture connection, passion and quality within dental technology



**CRAIG MARK
BROUGHTON**

Clinical dental technician and managing director, CMB Dental Laboratory



ASHLEY BYRNE

Associate director, Byrnes Dental Laboratory, part of the Corus group



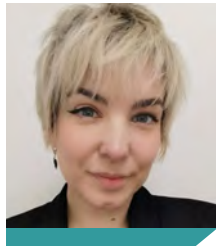
**MASSIMO
CICATIELLO**

Orthodontic dental technician and owner, Napoli Ortodonzia



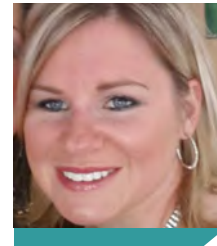
MATT EVERATT

Editor-in-chief of *Laboratory* and S4S Dental Laboratory director



NINA FRKETIN

Senior dental technician, Mango Dental Technologies



ANNA MUNRO

Dental technician, Southend University Hospital



**ELEANOR
PITTARD**

Managing director and co-owner, Hive Dental Laboratory



EMILY PITTARD

Clinical dental technician, clinical director and co-owner, Hive Dental Laboratory



KASH QURESHI

Clinical dental technician and managing director, Bremadent Dental Laboratory



DANIEL SHAW

Maxillofacial prosthodontist and laboratory manager, Chesterfield Royal Hospital



BRIANA SLACK

Dental technician, S4S Dental Laboratory



LOLA WELCH

Prosthetic technician, Ceramic Designs Laboratory

Dentistry CPD

ONLY
£29.99
ANNUAL
MEMBERSHIP

Dentistry CPD:

- 600+ hours of verified CPD
- A complimentary **PDP**
- Access to a CPD **tracker tool to monitor** your progress throughout the year
- Access to our dedicated **CPD support team**.

THE CPD SOLUTION FOR THE WHOLE PRACTICE

Dentistry CPD **PRO**

Upgrade to **Dentistry CPD Pro** to also unlock:

- **VIP** invites to all Dentistry Shows by FMC
- Complimentary subscriptions to **Clinical Dentistry**, **Private Dentistry** and **Dentistry magazine**
- **Discounts** on products and services from major dental suppliers.

ONLY
£99.99
ANNUAL
MEMBERSHIP



BROUGHT TO YOU BY



Call 01923 851771
or visit www.dentistry.co.uk/cpd

GDC failed to meet standards of 'good regulation', report finds

The General Dental Council (GDC) failed to meet standards for timeliness in both fitness to practise cases and registration processing.

This comes after the Professional Standards Authority (PSA) published its 2022/23 GDC performance review. The review monitored the GDC's performance against the *Standards of Good Regulation*.

Out of the 18 standards, the GDC met 16 of them. This means the PSA is not satisfied that the regulator is performing well in two areas.

The GDC failed to meet the standard for registration due to the time it takes the regulator to process applications. The PSA noted that some of the factors towards this are 'outside the GDC'S direct control', and therefore the regulator has put measures in place to improve its performance which the PSA will monitor.

In addition, the standard for timeliness in fitness to practise investigations was not met by the GDC because it is 'taking too long to deal with cases'. The PSA will also monitor the GDC's efforts to improve this.

'DISAPPOINTING' OUTCOME

Following the review, the GDC said that changes to legislation for the registration of dental professionals resulted in a 'surge' of applications. As a result, the regulator recruited a large team to help process applications.

The regulator also said the backlog is now beginning to decrease, and that it is on track to register 'more new dental professionals this year than ever before'. Regarding the fitness to practise timeliness, the GDC acknowledged that this has been an ongoing issue. Therefore, the regulator has expanded its casework team and

streamlined processes, among other measures, to reduce delays.

In addition, the GDC hopes that improved timeliness of fitness to practise cases will help to reduce the impact to the mental health of the individuals involved.

Gurvinder Soomal is the GDC's interim chief executive officer and registrar. He said: 'We are making very real improvements to the fitness to practise process.

'It is disappointing that the effects are not yet visible in the performance data, although this is an inevitable consequence of managing down a backlog of old cases with the measure of timeliness only crystallising at the point of completion.

'For registration, UK applications are now being processed within the target time and the backlog of international applications is falling steadily as a result of increasing processing capacity.'

Smart mouthguards to be used in all elite rugby competitions

Smart mouthguards that detect head injuries will be implemented in all elite rugby competitions from January 2024.

This was announced by World Rugby following a trial of the technology during the WXV last October, a new women's international rugby union competition.

The technology provides live updates on the players and sends alerts to medics when a player needs to be removed for a head injury assessment (HIA).

Custom fitted mouthguards will be provided to each player to be worn during both training and matches throughout competitions. The smart mouthguards have become an additional safeguard for player protection and do not replace any existing HIA protocol.

During the trial, Éanna Falvey, World Rugby's chief medical officer, said the technology potentially has the means to identify concussions that only come to light after a match.

The smart mouthguards are currently being used in the 2024 Six Nations Championship, which runs from 2 February to 16 March.

PRIORITISING PLAYER WELFARE

Julie Paterson is director of rugby at Six Nations Rugby. She said: 'Six Nations Rugby, its unions and federations are focused on driving the game-wide commitment to prioritise player welfare and innovate in this area, to ensure we are using the latest technology and enhancing our processes where relevant, to protect the players.

'The technology around instrumented mouthguards has been developed extensively over recent seasons through the work undertaken by World Rugby.

'The ability to expand the HIA process to incorporate this technology is testament to the player welfare commitment across the game. Their introduction into the championship this year has been through collaboration with all six unions, leagues, clubs and the players.

'This highlights the positive steps being taken when rugby comes together with a shared objective to support the game and its players.'



Technicians honoured by College of General Dentistry

Members of the dental technology community have been honoured as fellows by the College of General Dentistry (CGDent). Taking place at the Fellow's Winter Reception on 25 January at Cutlers' Hall in London, the event celebrated the diverse contributions to the field of dentistry.

Among the dental professionals honoured were Matt Everatt, *Laboratory* editor-in-chief and director of S4S Dental Laboratory, and James Neilson, clinical dental technician (CDT) and senior lecturer at Cardiff Metropolitan University. Both were honoured for their remarkable dedication and impact on dentistry, and their significant contributions to the profession.

A fellowship-level membership of CGDent represents the highest level of professional recognition, and those who receive this



status have demonstrated unwavering commitment and excellence in their field.

'INVALUABLE CONTRIBUTIONS'

Bill Sharpling is associate dean (CPD) at the faculty of dentistry, oral and craniofacial sciences at King's College London, and a CGDent council member. He said: 'I am

delighted to see Matt and James honoured for their dedication. Witnessing more dental technician (DT) and CDT colleagues join CGDent at fellowship level brings me immense pleasure. It has been a privilege to acknowledge their invaluable contributions.

'I eagerly anticipate welcoming more CDT and DT Fellows to CGDent at the Summer Reception later this year.'

He added: 'The CDT and DT faculty board played a crucial role in the process of recognising these outstanding achievements, which were then presented to the college council. I encourage all DTs and CDTs to pursue membership of the college at any level.'

'The CDT and DT faculty will soon offer varying levels of membership that acknowledge the diverse experiences, expertise, and professional development within our own group of dental professionals.'

UK labs join global corporate group

Corus, a global digital dental laboratory group, has expanded further into the UK market with three new UK labs joining its forces.

Joining Byrnes Dental Laboratory is QLab, Tusk Dental Technologies and Simplee Dental Ceramics.

This news comes as Corus continues its goal to enhance the quality of dental products offered across Europe and 'push the boundaries of dental technology'.

'PROUD AND HONOURED'

QLab founder Alaa Abou Hasan joined Corus for its clear vision and inclusive culture. He said: 'I am a great believer in collective work to make a positive change, and I found Corus to be a group best suited to achieve this and make a significant impact to drive our industry forward for the benefits of patients and professionals.'

Likewise, Bryan Matthews, Tusk Dental Technologies founder, said he feels 'proud and honoured' to join the Corus family.

He commented: 'There are significant disruptive changes happening in dentistry and dental technology, which are both

challenging and incredibly exciting. Being part of a team that aligns with our view of the future and has the strength to help us get there was a very exciting proposition.'

QLab, Tusk Dental Technologies and Simplee Dental Ceramics now join over 75 Corus labs across Europe.

EUROPEAN FOOTPRINT

Commenting on the news, Corus CEO Nicolas Bonnard said: 'With Byrnes, we entered a new market for us, to further consolidate Corus's European footprint and leadership serving high-end digital prosthesis and orthodontics to advanced dental clinics in nine European countries.'

'And now with QLAB, Tusk, and Simplee

onboard, we are ratifying our trust in the UK market and in Corus making the right movements.'

He added: 'We are working hard to promote innovative and differentiated solutions in the UK that have proven to be successful in other countries.'



ANALYSING



SCANNING

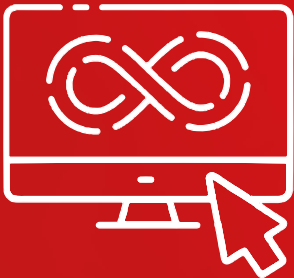
MPS MEDENTiKA® Prosthetic System

THIS IS MEDENTiKA®

INCREASE PRODUCTIVITY.
REDUCE COMPLEX WORKFLOWS.

MEDENTiKA®
A Straumann Group Brand

That's why we re-engineer original products to improve them while guaranteeing high precision and regulatory approved compatibility with the major implant systems available on the market.



ONE SYSTEM.
ONE WORKFLOW.
ONE SUPPLIER.



REENGINEERED ORIGINALS
Compatible with implant connections



PEACE OF MIND
Up-to-lifetime guarantee for your peace of mind



MADE IN GERMANY
A leading manufacturer of implant compatibles.



Download
Visual Guide

Calling for more compassion

Join **more than 1,500 people** in the fight for fairer GDC regulation

Over the past few months, *Laboratory* – in conjunction with *Dentistry* – has been calling for fairer regulation to reduce the number of unnecessary removals from the General Dental Council (GDC) register.

Throughout this campaign, we have heard countless stories of dedicated dental professionals being removed for minor administrative errors – be it forgetting to pay their ARF or being an hour or two short on their continuing professional development (CPD) requirements.

Laboratory believes the current system lacks the necessary flexibility and understanding and does not account for human error or unforeseen circumstances.

As a result, we would like to work with the GDC to help introduce a mandatory grace period following both registration and CPD statement deadlines.

OUR PROPOSALS

We are proposing:

- The GDC introduces a mandatory two week/14 day grace period for all dental professionals following deadlines for registration and CPD statements
- If a dental professional is short on their CPD requirements by three hours or less, they are allowed to make this up within said grace period
- During this grace period, the GDC commits to sending out three additional reminders to those who:
 - a Have not re-registered
 - b Are currently short on their CPD statement
 - c Have not made a CPD statement.

Please join us in advocating for this crucial reform by signing our petition today by visiting bit.ly/saving-grace-dentistry or scanning the QR code. If you would like to share your thoughts or experience, or write an article for the campaign, please email newsdesk@fmc.co.uk


These changes will ensure fairer regulation while maintaining high professional standards within the dental industry.

NEED FOR MORE COMPASSION

Gaby Bissett, editor of *Dentistry.co.uk*, said: 'With more than 1,500 signatures now received, it is clear that more flexibility when it comes to ARF and CPD deadlines is crucial.'

'This campaign aims to not only safeguard the livelihoods of dedicated professionals but also reinforce the cornerstone of patient care.'

'Each signature is not just a mark on paper, but a testament to the solidarity of the profession and highlights the pressing need for more compassion in dentistry.'

'For those who have signed the petition, thank you for your support. Please do share with your colleagues so we can continue this vital push for change.' 

WHY SIGN? HERE ARE WHAT SOME OF THE PETITION'S SUPPORTERS HAVE SAID...

'We are all human and make mistakes'

'[The current regulation] is unfair and patients are the ones who will suffer – the ones the GDC are supposed to be protecting'

'It isn't fair for the GDC to prevent somebody from working when they have paid their renewal but the bank has messed up'

'Most other professionals, be it medics, optometrists, pharmacists, accountants or lawyers, are back in the register within days, if not hours. But us dental professionals – oh no! It has to take weeks and weeks, even when their records are spotless!'

'There needs to be flexibility in life and the GDC needs to take on a supportive role as well as being the regulator for the profession'

'The system is too reliant on ticking boxes and should have some flexibility'

'I too have been removed from the register for missing one hour of CPD through two consecutive years. No thought was given for personal circumstances'

'Having completed nine hours during 2021-2022 before being diagnosed with breast cancer, I was unable to complete any hours in 2022-2023. Despite being just about to start radiotherapy after having completed six months of chemo, I was told I would have to do two hours CPD within the two weeks leading up to the deadline or risk my registration. I have always completed over and above the requirement previous to this'

'I think they should be more understanding if people are struggling at deadline'

'We need some level of common humanity from the GDC. We are short enough of people without this obstructive attitude'

'The action of actually removing someone from the register for something so trivial is just cruel'

'A friend of mine had her world turned upside down, but not for the total CPD hours being achieved (she did 72, yet the mandatory total was 50!) Her registration was threatened. She was told by GDC she broke the law for not inputting the correct totals in each year!'

'I have seen examples where there has been a minor failure in registering CPD hours because of a significant serious personal event and the GDC seems to have zero tolerance of this. It's unacceptable.'

Expertise and confidence: IPS e.max® ZirCAD Prime



Learn more
about the e.max
Zirconia family

You can trust IPS e.max® ZirCAD Prime and IPS e.max ZirCAD Prime Esthetic in terms of quality, longevity, stability and, above all, esthetics. Find out more about our Prime Zirconia. Register now to obtain access to interesting use cases: ivoclar.com/expertiseandconfidence

Ready to launch

The Dentistry Awards are back for 2024. Could this be your year to take home a trophy?

The Dentistry Awards – better known to some as dentistry's biggest party – have officially reopened for 2024!

The awards, which recognise excellence across all walks of general practice, will take place on 13 September at their usual home of The Athena in Leicester. And with registration now open and entry closing on 3 July, it's time to start planning your submission!

If you want a shot at bringing home an award, it's time to start putting your entry together before the deadline on 3 July 2024.

Read on for this year's categories and an abridged set of criteria. Please note that the following information is a guide only – for full entry details, please download the entry guide in full from dentistry.co.uk/awards/the-dentistry-awards.

TEAM MEMBERS OF THE YEAR

This category is open to dental technicians and clinical dental technicians. Explain why you should win by submitting any, or a combination, of the following:

- Demonstrate your passion for the profession
- Tell the judges of anything outstanding you have done or been involved in
- Detail any hurdles you have overcome
- Provide evidence of excellent patient care or where you go beyond the regular duty of care
- Show how or why you are different from others
- Show evidence of connection with the local community or a charity.

DENTAL LABORATORY OF THE YEAR

Submit evidence detailing the following:

- Highlight how you maintain consistent high standards of work throughout the laboratory
- Provide evidence of how you go beyond the regular duty of client care
- Describe how the team is led
- Show how you keep the team happy
- Demonstrate how you connect with the local community
- Show your marketing plan and demonstrate its effectiveness
- Give evidence of investment and development in your lab and your team
- Financial progress: is the lab successful and viable?

WEBSITE OF THE YEAR

To enter this category, explain why your website should win, detailing a selection of the following. Include screenshots as support.

- Show excellent structure and navigation
- Demonstrate how the website has been carefully designed to connect quickly with its target audience
- Explain what measures have been taken to reduce bounce rate
- Explain what measures have been taken to increase conversion rate
- Show the creative process that ensures the website doesn't look like a 'template' website
- Demonstrate the website's speed
- Show SEO visibility and usage numbers.



Entry deadline
3 July 2024

Ceremony
13 September 2024


SUSTAINABLE BUSINESS AWARD

To enter this category, detail your commitment to operating a sustainable business and how you've taken steps to examine every area of its environmental footprint. You must describe the actions taken and provide evidence of the commitments. Specifics to consider include your reduction of single-use plastics, your carbon footprint and emissions, the management of your sustainability work, your efforts to reduce what your business consumes, and your approach to biodiversity.

- Why is being a sustainable business important to you? Why are you committed?
- How do you organise yourself to deliver on your sustainability commitments?
- How do your commitments filter into aspects such as procurement, waste management, decision making and communications?
- How have you sought to engage with clients and staff over your sustainability commitments?

TEAM OF THE YEAR

To give your team the best chance to be recognised, demonstrate the following elements:

- Demonstrate a great team atmosphere and approach to patient care
- How does your lab invest in team development and training?
- How are you different from the competition?
- Show where your team goes above and beyond the regular duty of care
- Provide evidence of connection with the local community or charity. 

WITH THANKS TO OUR SPONSORS



FOR MORE INFORMATION

or to register, visit dentistry.co.uk/awards/the-dentistry-awards, contact +44 1923 851777 or scan the QR code



Redefining auricular prosthesis

Dan Shaw presents a trauma case in which digital dentistry is fundamental to precision, realism and ease



DANIEL SHAW
Maxillofacial prosthetist,
Chesterfield Royal

Following a violent attack over 10 years ago, this patient lost most of the left auricle or pinna (ear), and only the tragus and a small aspect of the lobe remained intact.

The patient was originally treated at Sheffield Teaching Hospitals, where auricular implants were placed into the cortical bone to provide the best type of fixation of the future prosthesis. Had implants not been placed, then a prosthesis would still have been provided to him, but it would have been retained solely with medical adhesive. This involves the awkward manipulation of the device into place on an area that is difficult to see when doing the task alone.

Adhesive retained auricular prostheses have been and continue to be manufactured at Chesterfield on a temporary basis until the patient has had their implants surgically inserted.

TAKING IMPRESSIONS

To get the best fit, an accurate impression of the defect area needs to be provided.

The location of two implants needed replicating onto the



CLAIM YOUR CPD

GDC anticipated outcome: C

CPD hours: One

Topic: Manufactured prosthetic appliances

Educational aims and objectives: To provide a case demonstrating the manufacture of a prosthetic ear.

This article qualifies for one hour of enhanced CPD. Turn to page 58 to answer the questions.

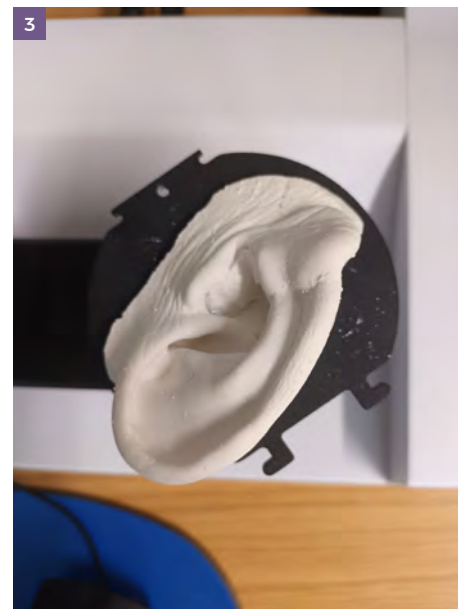


FIGURE 1: We used a combination of two silicone impression materials, Kerr Dental Extrude Medium (green) and Kerr Dental Extrude Extra (purple)

working model. To achieve this outcome, the pick-up technique was used by placing two magnets onto the implants and then applying the impression silicone upon them.

We used a combination of two silicone impression materials, Kerr Dental Extrude Medium (green) and Kerr Dental Extrude Extra (purple) (Figure 1). These silicones are 'gunned' into place with pressure force to help prevent air defects being incorporated. Extra care was taken around the implants to provide the working model with an accurate replication of the defect site.

The patient has a healthy right ear, so an impression was taken of this with simple dental alginate, which was allowed to set, and we then poured in Crystacal R Plaster. The stone model was removed from the alginate and cleaned of any air-blow debris (Figures 2 and 3).



FIGURES 2 AND 3: The patient has a healthy right ear, so an impression was taken of this with simple dental alginate that was allowed to set, before Crystacal R Plaster was poured in. The stone model was removed from the alginate and cleaned of any air-blow debris

3D SCAN

We cannot accurately reproduce the lost ear. What is possible, however, is the ability to produce an exact copy of the contra-lateral side. This is made possible by taking a 3D scan of the 'good' ear and producing an STL (Figure 4). This STL is then transferred into

EXTRA CARE WAS TAKEN AROUND THE IMPLANTS TO PROVIDE THE WORKING MODEL WITH AN ACCURATE REPLICATION OF THE DEFECT SITE

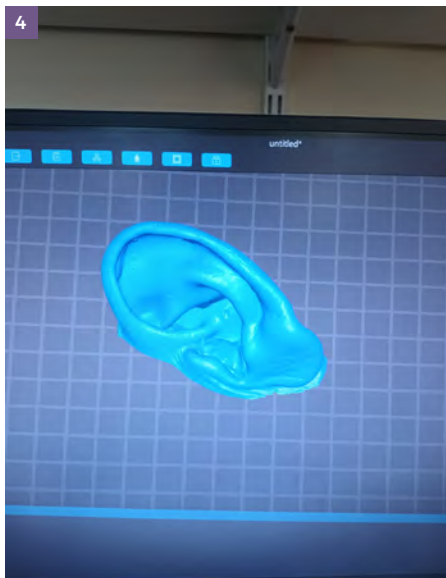


FIGURE 4: To produce an exact copy of the contra-lateral side, a 3D scan of the 'good' ear is carried out and an STL is produced

Meshmixer and checked for any holes within the mesh.

This is because STLs that are not closed cannot be printed as they are boundless and the triangulations are not complete. When the file was closed, it could then be mirrored to give an exact replica (Figure 5).

The mirrored STL, which now resembles a left ear, was then printed out as a solid working model. This allowed us to repeat the original exercise of taking an alginate impression of the left ear replacement.

Modelling wax was poured into the alginate mould that could give us a wax pattern of the left ear (Figures 6 and 7). It was then positioned over the implants on the working model we made from the impression of the

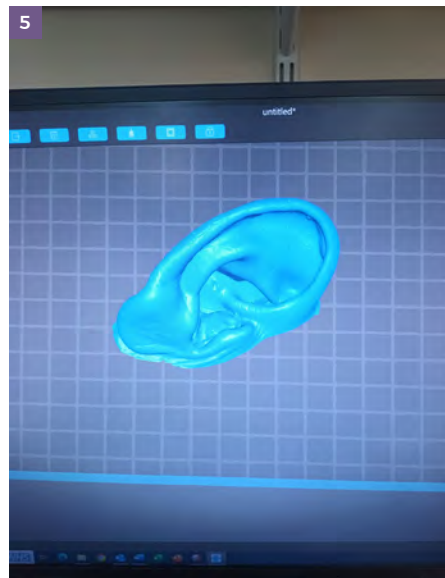


FIGURE 5: The STL file is mirrored to give an exact replica of the right ear

defect (left) site. This process totally irradiated the process of carving an ear from wax.

THIS PROCESS TOTALLY IRRADIATED THE PROCESS OF CARVING AN EAR FROM WAX

TRY-ON

The patient attended his appointment to have a try-on and, following some minor shape adjustments to level up the wax pattern to the healthy side, the patient was happy with the shape. Using intrinsic colours, we then matched Technovent's M511 silicone to match the healthy right side.

Following the try-on and establishing the correct intrinsic silicone colour, the wax ear was invested in a standard brass flask. This is done so in the small half of the flask in Crystacal plaster.

To facilitate the correct colour placement and to prevent air becoming trapped behind the helix aspect, a small 'cushion' of plaster is added to the invested wax pattern.

The top half of the flask is invested in Crystacal stone. Once set, the flask is boiled out as you would do with a denture.

In part two of this case study, we will look at the silicone colouring, activating and packing process. We will also explore the fitting stage, including extrinsic colour matching to disguise the prosthesis as much as possible. [▶](#)



FIGURES 6 AND 7: Modelling wax was poured into the alginate mould to provide a wax pattern of the left ear

VITA
100 years



VITAPAN EXCELL®

Natural functionality, lifelike beauty.

- brilliant play of shade and light
- variety of natural tooth shapes
- excellent abrasion durability



Find out more!

For more information, call us!

Michelle Afonso | +44 (0) 730 586 75 28

Diana Hillen | +44 (0) 784 556 98 83

A seamless collaboration

Nina Frketin and Harry Craig demonstrate how a clinical and laboratory partnership can elevate complete denture fabrication



NINA FRKETIN
Senior dental technician,
Mango Dental Technologies



HARRY CRAIG
Associate dentist,
Riveredge Cosmetic Dentistry

With this clinical case, we present a journey where clinical and laboratory expertise converged at every stage of complete denture fabrication.

The key to our success lay in the repeated use of clinical images, serving as a powerful tool for communication between the clinic and the laboratory. This meticulous collaboration ensured that we adhered to gold standards from the initial stages right through to the final masterpiece.

THE CASE

In pursuit of a brighter and more youthful smile to celebrate her 70th birthday, our lovely patient Hilda sought a cosmetic dental assessment with us. Her primary concerns centred around the colour and shape of her existing dentures, her faithful companions for over three decades.

Upon thorough examination, it became evident that Hilda's existing dentures exhibited signs of wear and tear after so many years of dedicated service (Figures 1 and 2).



FIGURES 1 AND 2: Upon thorough examination, it became evident that Hilda's existing dentures exhibited signs of wear and tear after so many years of dedicated service

The under extension of the dentures contributed to a lack of retention and stability, impacting her overall oral health.

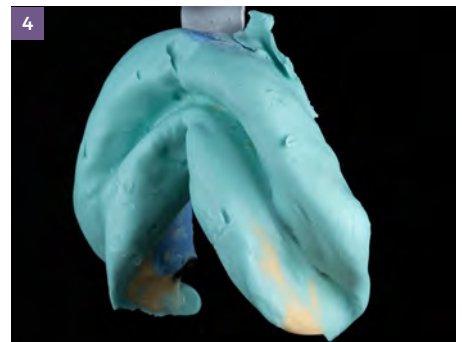
Occlusal wear presented challenges during eating, while deficient buccal corridors contributed to a narrower smile than desired.

Furthermore, the presence of calculus and staining added to the ageing appearance of the dentures. Determined to welcome her milestone birthday with a new and vibrant smile, Hilda embarked on a journey to address both aesthetic and functional aspects of her smile.

The treatment plan involves the meticulous crafting of new custom dentures, strategically designed to both address the functional concerns and take the aesthetic aspirations Hilda envisioned into account.

IMPRESSION STAGE

Primary impressions were taken using dentate stock trays. Both were modified with Green Stick, followed by silicone putty (Figures 3 and 4). The lower also had an alginate wash to ensure accurate special tray creation.



FIGURES 3 AND 4: Primary impressions were taken using dentate stock trays. Both were modified with Green Stick, followed by silicone putty



**CLAIM
YOUR
CPD**

GDC anticipated outcome: C

CPD hours: One

Topic: Dentures

Educational aims and objectives: To highlight the teamwork between technician and dentist for complete denture fabrication.

This article qualifies for one hour of enhanced CPD. Turn to page 58 to answer the questions.

SPECIAL TRAYS AND MAJOR IMPRESSIONS

The primary impressions were cast in class three stone. This initial step is incredibly important for capturing the unique contours of the patient's oral anatomy – a crucial starting point for the creation of dentures.

To ensure a seamless fit, special trays were crafted using light curing material. These trays were meticulously designed to conform to the myostatic outlines.

The level of detail in this step is paramount as it forms the basis for the subsequent major impressions. The amount of spacer utilised in the trays was determined by the material chosen for the final impression.

Moving forward, major impressions were taken. A border-moulded Green Stick at the periphery laid the groundwork, followed by a light-bodied silicone wash while the patient actively created functional movements.

BITE FABRICATION AND REGISTRATION

After casting the impressions in type four stone, the models were duplicated, and bite blocks were fabricated using clear hard bases and wax rims.

The wax rims were shaped to set parameters to help registration.

A Kois dentofacial analyser was used on the upper bite block to ensure horizontal alar-tragus plane (Figure 5).

Subsequently, the upper bite was adjusted to ensure two to three millimetres was showing in repose position. The lower bite block was also adjusted accordingly.

A final registration was taken in jet bite and canine lines were marked to aid the mould choice. Despite the desire for brighter teeth, a delicate balance was struck, respecting the patient's preference not to progress past Vita B1.

TRY-IN

Our journey began with the careful articulation of models, employing low expansion and low heat articulating plaster.

A rubber band, symbolising the Bonwill Triangle and occlusal plane, played a crucial role in aligning the bite registration.

This meticulous step ensured that the models found their rightful place at the centre of the articulator, parallel to the occlusal plane – a key aspect in the pursuit of both stability and aesthetics.

Model analysis unveiled the roadmap to the ideal teeth positions and inner/outer



FIGURE 5: A Kois dentofacial analyser was used on the upper bite block to ensure horizontal alar-tragus plane



FIGURES 6 TO 8: Excellent retention and even occlusal load was observed from both dentures at try in. We received the green light to proceed to the final stage



FIGURES 9 AND 10: Natural staining of the gum was made, providing hyper realistic results



FIGURES 11 TO 13: In our post-insertion overview, Hilda had no reservations or complaints. Her satisfaction was palpable, radiating through her contented smile

correction lines. Measurements of the bite block, factoring in elements like a high smile and the distance between canines, played a pivotal role in choosing the Vita Excell T45 mould for the maxilla, and L35 for the lower anteriors. This was accompanied by corresponding posteriors 21U, as suggested by the Vita mould chart.

Opting for lingualized occlusion, we embraced a dynamic setup that ensures stability and minimises the risk of potential fractures. Twisting the laterals slightly during the setup was a nuanced touch, reflecting our commitment to a smile that not only fits but also feels entirely natural.

In the meticulous wax-up process, we took careful attention to the muscular activities of both the maxilla and mandibular arches, ensuring a gingival landscape that harmonises with Hilda's natural dynamics.

Excellent retention and even occlusal load was observed from both dentures at try-in stage (Figures 6 to 8).

Buccal corridors and axial inclinations improved, ensuring a full, equal smile. Midline and incisal orientation conformed with Hilda's aesthetics.

With joy and confidence, we received the green light to proceed to the final stage.

TECHNICAL SIDE FIT STAGE

The dentures were flaked appropriately and Flexistone, a key player, was applied to the teeth and wax, ensuring the integrity of their position.

After carefully boiling out the wax and applying two coats of separating fluid, we employed the Ivobase system for the processing phase. This advanced system not only securely bonds the materials, but also enhances the overall fit and durability of the dentures. It's a step that ensures your new smile stands the test of time.

After the dentures underwent processing, we refined the gingival part. A careful cutback of 1.5mm paved the way for the addition of pink composite. Anaxgum pink composite was thoughtfully applied to match the patient's surrounding tissues seamlessly. After the final cure, a glaze was applied to seal everything together.

The outcome? A natural blend that beautifully complements the intricacies of oral anatomy.

At the heart of our approach was a commitment to both aesthetics and functionality


CLINICAL SIDE FIT STAGE

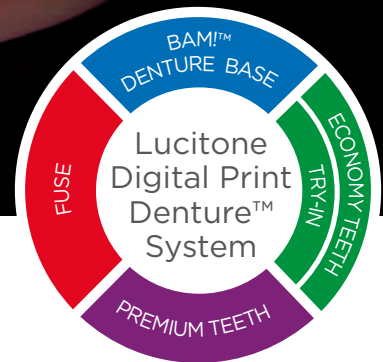
We are thrilled to share the final chapter of Hilda's transformative smile journey, a tale where precision met artistry to create a radiant smile that mirrors her joy.

Upper and lower dentures were inserted to ensure no changes from the try-in stage were made. Natural staining of the gum was made, providing hyper realistic results (Figures 9 and 10).

At the heart of our approach was a commitment to both aesthetics and functionality. The use of a functional light body wash during the try-in ensured no gross overextensions, guaranteeing that the patient's new smile not only looked fabulous, but felt just as comfortable. In our post-insertion overview, Hilda had no reservations or complaints. Her satisfaction was palpable, radiating through her contented smile (Figures 11 to 14).

In summary, Hilda's smile journey is a testament to the careful blend of dental lab craftsmanship and dentist patient-centred care.

Each step was guided by our dedication to excellence, and the outcome is a smile that goes beyond expectations to deliver genuine happiness. 



Built for beauty and durability

With **Lucitone Digital IPN™ 3D Premium Tooth**, labs can meet the accelerating demand for premium denture teeth with esthetics built into the workflow. The Lucitone Digital Print Denture™ System provides any lab with a Carbon® M-Series, Asiga MAX™ UV, or Asiga PRO 4K™ printer to scale up production and drive profitability, without sacrificing the material standards established with traditional products.

- Premium wear resistance built from Dentsply Sirona's long history of denture teeth expertise
- Translucency and esthetic detail expected in premium denture teeth
- Available in 16 A-D shades†, plus two bleach shades
- Pour and print, no mixing required



Visit www.dentsplysirona.com/lucitonedigitalipn to learn more.

†The A1-D4 designations correspond to the VITA classical A1-D4* shade guide which is meant to be a guide, not a match.
VITA classical A1-D4 is a registered trademark of VITA Zahnfabrik H. Rauter GmbH & Co.
Carbon is a registered trademark of Carbon, Inc.
Asiga, Asiga MAX, and Asiga PRO 4K are trademarks of Asiga.
Dentsply Sirona | 1301 Smile Way | York, PA 17404 | 800-243-1942 | dentsplysirona.com
© 2022 Dentsply Sirona Inc. All rights reserved. Form No. DP-0000596 Rev. 2 (07/2022)

Becoming president

Ian Cumberland discusses the obstacles the industry is facing and what he hopes to tackle as DLA president



IAN CUMBERLAND
President of the Dental Laboratories Association

PLEASE INTRODUCE YOURSELF

Born and raised in Nottingham, I am the owner of a prosthetic laboratory called Ultimate Occlusion. I have grown-up children who still behave like children when it suits them! My wife also has her own business, so we always have a fair amount to discuss at the end of the day. We also have four dogs and a couple of tortoises.

I have a passion for anything from the 1950s and 1960s, so owning a couple of older classic cars seemed the right thing to do when they came up for sale. I now regularly display them at classic car exhibitions.

HOW AND WHY DID YOU ENTER DENTAL TECHNOLOGY?

I always enjoyed making things and could very rarely sit still as a child, unlike my brother who'd be happy to play chess on the computer all day. Meanwhile, I'd be making models or drawing.

After leaving school in 1986, I applied to a city centre dental practice in response to an advert in the Nottingham Evening Post. So, just after my 16th birthday, I found myself in an amazing world of surgeons, patients and nurses on day release to the Nottingham People's College. I really enjoyed the technical detail of the work I did; it was a great mix of precision and interpretation – something which I love in other aspects of my life, such as making music and classic cars.

It was my late mother who dropped the advert onto the kitchen table, and I will always be in her debt for it!

YOU WERE RECENTLY ELECTED DLA PRESIDENT - HOW DOES IT FEEL?

It feels really great. Being elected as the new president of the Dental Laboratories Association (DLA) was a wonderful moment in my career and a real honour. Having been a part of the DLA board and working with Steve Campbell for a while now, I know the size of the task in hand, and I absolutely relish the opportunity I have been given – I can't wait to start tackling the challenges which may arise.

The dental industry in the UK has some significant obstacles to overcome at the moment, particularly

around effective regulation, improved access to education, and staffing. We really need to pull together to continue to provide a great service in the UK.

THE DENTAL INDUSTRY IN THE UK HAS SOME SIGNIFICANT OBSTACLES TO OVERCOME AT THE MOMENT

WHAT DOES THE ROLE OF DLA PRESIDENT INVOLVE?

In short, I'm just the figurehead for a fantastic team who work tirelessly to support the membership, helping and supporting them on a daily basis as well as looking at the longer-term support for the dental laboratory industry and the dental technology profession.

Dental technology is changing at such a great pace, both with the technology that is being developed and the changing nature of how employees see the workplace. With this in mind, as an association we need to be constantly challenging ourselves by looking at what we do and how we could do it better.

Ultimately the DLA needs to ensure that we get the best opportunities and working conditions for our members, while continuing to reach our high standards.

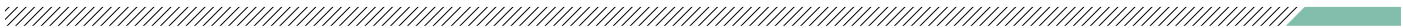
Over the coming years, I want to increase



our engagement with other stakeholders in dentistry to achieve the best possible outcomes for all UK dental labs, as it is a huge challenge.

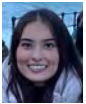
WHAT DO YOU HOPE TO ACHIEVE AS PRESIDENT OF THE DLA?

As a team, I'm hoping that we can grow our base of members and ensure that new and emerging technologies can complement what we already offer to our dentists.



First impressions from a dental technician

Emily Makinson shares her thoughts on the industry so far and what makes dental technology a rewarding profession



EMILY MAKINSON

Trainee dental technician,
Dental Precision

My name is Emily Makinson, I am 24 years old and working as a trainee dental technician in St Agnes, Cornwall. I am originally from Lancashire and moved to Cornwall just over two years ago, still unsure of which career path I wanted to pursue.

I had worked in laboratories both in previous jobs and at university, and it's an environment I thoroughly enjoyed. I then came across dental technology which I had briefly heard of but never ventured into.

Ever since I had braces when I was younger, I have had a fascination for orthodontics and teeth in general, making sure to wear my retainer every single night. However, years later I never thought I would be making those same Essix retainers for patients all around the UK.

LOVING EVERY SECOND

It has been two years since I started this profession and I have loved every single second. I started my apprenticeship with Yeovil College in 2022 and I am now in my second year of five. The biggest struggle is driving to and from Yeovil all the way from Cornwall in one day, but I know that it's worth it. I'm in my element as I learn new theory and techniques.



At work, I started off in the model room casting models for crowns, bridges and prosthetics, while also helping fabricate wax rims, special trays and splints.

After a year, I moved onto CAD/CAM and I was designing crowns/veneers/bridges/implants, printing 3D models and milling crown and bridge work. Up until recently, I have concentrated on prosthetics. This is an area that I thrive in, and I'm also getting comfortable with staining and glazing zirconia and emax crowns.

Every day is different; I generally help in all departments which is always interesting with each case being unique.

REWARDING AND EXCITING

This profession is so fascinating, and I feel as though not many people are aware of it. There are so many varied areas to specialise in which makes it so fun as you get to work with a range of materials, software and machines. Also, seeing patients pleased with your work makes it so rewarding.

The digital side is expanding and there is so much more to learn. Working in CAD/CAM has opened this door for me, and studying the digital dental technology course is only going to educate me further. This is so exciting for my future and the patients we work with.

Laboratory



COMMUNICATION IS CRITICAL

Communication between dentists and technicians is one area that should be improved on in this industry. Simple questions to the dentist over the phone or a detailed prescription is vital to make both the dentist and patient happy. It ensures the custom medical device is perfect for the patient first time round and prevents unnecessary additional appointments.

As a student, I feel that my teachers are all so supportive and it's clear they want you to excel. Technicians that I have worked with are so helpful and quick to educate you and ensure you learn to the best standard. Tutors and colleagues always make sure I

ask 'why?' in everything I produce to make sure I fully understand the reasoning behind what I'm doing. This makes me love my job even more as I'm learning every day.

DIGITAL FUTURE

The future of dental technology, in my eyes, is CAD/CAM. After visiting Brynes Dental Laboratory, I learned that acrylic dentures will be a thing of the past. I hope it doesn't remove the art of manually fabricating dentures with the classic Bunsen burner, yet I do believe digital will be the way forward. Since I started in this profession, I have seen the number of impression cases decline and the digital cases increase.

The number of courses that are accessible is amazing and they can all expand your knowledge and improve your skills. I also love that everyone in the industry encourages you to always progress.

As I continue with my apprenticeship, I look forward to learning more about software and crown and bridge. After qualifying and registering, I would love to pursue a clinical dental technology course and widen my knowledge and communication with patients. [L](#)

CONNECT WITH EMILY

[@emdentaltech](#)

A Truly Open Digital Implant Workflow

Delivered by a truly open partner



Hybrid Bases That Meet The Challenge.

Elos Accurate Hybrid Bases are available with compatibility for a wide range of popular implant platforms in both engaging and non engaging connections. With most bases available with a short and tall chimney height along with angulation capability, Elos Accurate Hybrid Bases are the solution for you that will meet the most challenging of restorative cases. As an open solution Elos provides fully supported implant libraries for 3Shape, Dental Wings and Exocad CAD solutions.



Implant Level Guarantee

Elos Medtech provide a Manufacturer equivalent Implant Level Guarantee when supplied via ESM Digital Solutions.

"ELOS remains the system we recommended to all our clients."

Ashley Byrne, Byrnes Dental Laboratory, Oxford.

"The reason we encourage our surgeons to scan with ELOS is that we are assured that from point of acquisition we will have numerous quality assured workflows open to us to ensure we can deliver excellent restorative solutions to our surgeons."

Steven Campbell, Nexus Dental Laboratory, Yorkshire.



UK: (020) 8816 7840

Ireland: (01) 808 4446

sales@esmdigitalsolutions.com

www.esmdigitalsolutions.com



The pursuit of excellence

Tony Atkins shares three lessons he has learned from his time in the lab



TONY ATKINS

Senior dental technician and department lead, Ceramic Designs Laboratory

How do you encapsulate the best part of 30 years into around 900 words? Let's see...

I began my career as an apprentice in London's West End at Stocking, Beer & Oborn Dental Laboratory in 1996, a well-regarded laboratory which specialised, as part of the Terec group, in refractory-based restorations. Here, my primary role as an apprentice was to fabricate the refractory models.

From there, in 2000 I became the founding member of Dents & Dental excellence with Anthony Laurie, and after five fantastic years I joined Mick Kedge and Cliff Quince of Kedge and Quince where I continued my pursuit of mastering complex rehabilitations.

An interesting fact is I gave my first lecture on behalf of Panadent and Vita at the tender age of 20, titled ABC: Aesthetics Be Creative, whereby I discussed anterior aesthetics and gnathological principles.

1. CHALLENGE YOURSELF

I make a huge point of ensuring I am continually challenged. By taking myself out of my comfort zone in some way, I feel it has helped me grow as a dental technician, and, of course, learn.

Have I got it right each time? Certainly not. For example, giving a lecture as a natural introvert is no easy thing, I assure you. And fabricating a full upper and lower metal and ceramic rehabilitation twice, because the first attempt had inexplicably started to resemble crazy paving as it began to fracture in dozens of places suggesting something had clearly gone very wrong... it's those moments of stress and challenge that really give me the greatest sense of achievement!

I'm not able to entirely explain why I have always felt the need to challenge myself,



but I have never been one to simply go through the motions. There is simply nothing inspiring in that.

However, over the years, the more I have pushed myself, the more those I have worked with have looked to me to take on the more complex of cases.

So, I suppose I have achieved what I had set out to.

2. THE NEW AGE OF DIGITAL DENTISTRY

Now, I think it is safe to say I am an 'old school' technician. However, digital dentistry and the advancement of materials and machinery in recent years has truly transformed my career. It has given me so much more time to focus on all the details that really set a case apart, from simply being good to being really great. And it does this so consistently, too.

I HAVE NEVER BEEN ONE TO SIMPLY GO THROUGH THE MOTIONS. THERE IS SIMPLY NOTHING INSPIRING IN THAT

I do, however, have to acknowledge that I am in the fortunate position to work in a laboratory that has all the latest equipment. I am also lucky to work with some amazing technicians that create the foundation for my creativity, three in particular being Graham, Krzysztof and Talia – they are the unsung heroes of the crown and bridge department.

The future of digital dentistry really is limitless, whether that is in technological advancement, from CT and intraoral



scanners and the level of detail they can predictably pick up, to 3D printers and the materials that can be printed, such as printable zirconia and ceramics. The future really is just around the corner.

3. THE IMPORTANCE OF THE TEAM

Having worked alone for a number of years, I don't think I can emphasise enough the importance of having a great team around you. I strongly believe that a great outcome is only as good as the sum of its parts.

The ability to discuss a case and share ideas really is the difference between success and failure. Having a great team really gives me the motivation to continually keep pushing forward.

Over the course of my career I have experienced the good, the bad and the ugly! In my opinion, teams are made up of cultural architects and cultural destructors.


In unfortunate cases it can lead to disharmony, a team feeling unsettled and ultimately a miserable place to work. I can only describe it as having a lot of white noise around you...

In these scenarios they rarely last very long, with those not sharing the values of the cultural architects often moving on.

In the best case scenario, a team made up of more architects than destructors can be absolutely magical; each and every team member understands the importance of their role and understands what is expected of them, feeling more valued and ultimately more engaged.

A team of talented people who share the same values does not mean that alternative ideas are not proposed. It means that everyone is looking to achieve the best possible outcome without ego.

Ceramic Designs Laboratory really is the very best team I have had the pleasure to work with, made up of a bunch of super talented individuals who happen to be just the right amount of crazy, making the working environment such a fun place to be. It is a team of people completely committed to achieving the best possible outcomes, and for that reason I consider myself very lucky indeed.

That is why having a good team around you is so important! 



CONNECT WITH TONY

 @the_dental_artisan

Reinforced CAD/CAM composite for permanent restoration

BRILLIANT Crios

BRILLIANT Crios is a high-performance composite block or disc for permanent restorations. The material combines all the advantages of an innovative submicron hybrid composite material with those of a CAD/CAM fabrication process for the reliable, aesthetic and fast manufacturing of restorations without a separate firing process.

- High flexural strength for resistant restorations
- Tooth-like elasticity for a shock-absorbing effect and pleasant bite experience
- Blends in extremely well to give natural aesthetics
- High resistance and low abrasion on opposite tooth
- Easy polishing for fast shine



COLTENE
rewards.coltene.com

**REWARDS
NOW LIVE!**



SIGN UP NOW



LEARN MORE



FREEPHONE: 0800 254 5115
INFO.UK@COLTENE.COM WWW.COLTENE.COM

COLTENE

Better thermoforming for all Indications

Aligners



Retainers



Whitening Trays

Insulating
layer on all
blanks
for a
**cleaner,
faster
finish**



Silensor-sl
Anti-Snoring
Devices



Mouthguards



Splints



Night Guards

For further information call
Schottlander on **freephone 0800 97 000 79**

**SCAN TO
DOWNLOAD
CATALOGUE**



Follow us on



schottlander

sales@schottlander.co.uk | www.schottlander.com

Winning Best Clinical Dental Technician

Gosia Ciepiela discusses the 'incredible' moment of winning Best Clinical Dental Technician and what it means to her



GOSIA CIEPIELA

Clinical dental technician, Falkirk Dental Care and Loanhead Dental Practice

PLEASE INTRODUCE YOURSELF

My name is Gosia Ciepiela and I am a clinical dental technician (CDT) based in Scotland. I am originally from Poland but I have been living in Scotland for almost 15 years.

I work as a CDT in two dental clinics, Falkirk Dental Care and Loanhead Dental Practice, with a team of amazing dentists and dental care professionals (DCPs). Apart from working in the clinic and treating patients, I work with oral surgeons providing technical support on full arch immediate restorations.

HOW AND WHY DID YOU BECOME A CLINICAL DENTAL TECHNICIAN?

I started my dental journey in 2012 as a trainee dental nurse in a mixed general practice in Aberdeen and qualified with a NEBDN diploma in 2014.

I was very passionate about my work and developed a big interest in prosthodontics. Working alongside implant surgeons and dentists with an interest in restorative dentistry, I was inspired by dental technology and decided to study it at Edinburgh College.

During that time, I had met inspiring CDTs and realised that this is exactly what I wanted to do! I thought that, with my dental nursing background and technical skills, I will be able to make a real difference to denture patients. After qualifying as a dental technician, the practice where I was still working as a dental nurse offered to support me through my CDT training. It was a truly life-changing experience.

WHY DID YOU ENTER THE 2023 DENTISTRY AWARDS?

I have been working with award-winning dentists and DCPs and was always encouraged to enter the awards.

I was very happy to see a category for CDTs for the first time as I feel that we are the group

that is often left out in dental awards. I felt that this would be an amazing opportunity to promote myself as a CDT but also help to promote CDTs as a group.

HOW DID IT FEEL TO WIN BEST CLINICAL DENTAL TECHNICIAN?

It was an incredible feeling to hear my name called as a winner, especially since there were another three incredibly talented and experienced finalists. I feel truly honoured and grateful, mostly because I did not expect it!

WHAT DOES WINNING THE AWARD MEAN TO YOU?

It is an amazing accomplishment on both a professional and personal level. It was a great opportunity to reflect on my work as a CDT and the way I deliver care to my patients.

I strive to deliver the highest quality level of care and support I can. Being awarded for this means a lot to me.

WHAT ADVICE WOULD YOU SHARE WITH OTHER CDTs?

My advice is to remember that we are part of the dental team and we must work closely with other clinicians and DCPs to benefit our patients. Oral hygiene education and utilising dental therapists, hygienists and hypnotherapists can make a huge difference to the management of denture patients.

Learning communication skills, patient management, and management of previous dental and medical history is just as important as being able to design and construct high quality dental prostheses.

WHAT IS NEXT FOR YOU? WHAT ARE YOUR AMBITIONS FOR THE FUTURE?

I want to focus on personal development and expanding my referral network with local dentists. I am also booked on several courses to build my clinical and technical skills utilising digital dentistry.

I was presented with an amazing opportunity



to get involved in teaching and supporting other dental technicians with a group of super inspiring ladies from Night Shift.

IS THERE ANYTHING ELSE YOU WOULD LIKE TO ADD?

I would like to thank FMC and Laboratory for their support of dental technicians and clinical dental technicians, and for promoting our roles throughout the dental industry. [L](#)



THE DENTISTRY AWARDS RETURN FOR 2024!

Registration is now open for the 2024 Dentistry Awards, one of the most highly anticipated events of the year.

For more information and to register your interest, scan the QR code.





ZIRKONOFEN 600/IV



SPEED
SINTERING IN LESS THAN

3
HRS

60
ZIRCONIA ELEMENTS

HEATING RATE
UP TO

60
°C/MIN

-66%
TIME*

COOLING RATE
UP TO

40
°C/MIN

-61%
ELECTRIC CONSUMPTION*

Incl. Zirkonzahn.App

*Comparison between the Standard program and the new Speed program



Follow us on Facebook and Instagram!

MORE
INFORMATION



ZIRKONOFEN 600/V4

EFFICIENT, INNOVATIVE, ENERGY-SAVING

- + High-resolution 7" colour touchscreen
- + Possibility to create individual sintering programs
- + Automated door for optimised cooling
- + Control accuracy of ± 2 °C at a final temperature of 1600 °C
- + Possibility to calibrate the temperature independently
- + Baking Recovery function
- + 2 MoSi₂ high-performance heating elements
- + Sintering chamber capacity of 0.6 l

OPEN
SYSTEM



Automated furnace door which guarantees optimal cooling performances keeping a linear and homogeneous temperature curve in the sintering chamber.



Via the 7" touchscreen and easy-to-use software interface, the user can control all processes and add individual sintering programs.

A letter to my younger self

Reflecting on his career, **Giles Bradley** discusses the benefits of stepping out of your comfort zone and how dental technology has changed for the better



GILES BRADLEY
Dental Technician,
Ultralight Dental Laboratory

Well, this is a little odd!
Get a pen and take down these six numbers, they are for the National Lottery. Oh, hang on, it doesn't start for another 20 years. Take them down anyway just in case 'plan A' fails!

So, after finishing school we've decided that, following a couple of false starts (once with engineering – apparently, I'm not that good at maths, and then with professional golf – apparently, I'm not that good at golf), we are going to follow dad's footsteps into dental technology. Well, I did build up my first crown when I was only 14, so how hard can it be?

COLLEGE YEARS

You won't realise from where you are – way back in the 1980s – just how lucky you are that it's relatively easy to get onto a dental technology course. Further down the line, governments don't seem to see this as a priority. Anyway, this won't affect you for years to come.

Make the most of your time at college; watch, listen and learn. You will love college and the friends you make, and even the lecturers are awesome.

At this point in your career, the industry is moving pretty slowly for the average lab, so

Opportunities will sometimes come from unexpected places. Grab every single one of them – who knows where they could lead?



what you learn will be put to good use for another 20 years or so. Later, technology will hit the accelerator hard, so hang on to your hat and keep up with it. You're in for a steep learning curve and a wild ride!

CHANGE FOR THE BETTER

The good news about that is the job gets much better than you ever thought it possibly could: easier, faster, cleaner and the big one, more profitable. The industry almost becomes respectable, but don't let that go to your head.

Opportunities will sometimes come from unexpected places. Grab every single one of them – who knows where they could lead? Get used to being out of your comfort zone as you will be feeling uncomfortable a lot!

The industry has changed so much from where you are then to where you are now, and the good news is that it's for the better, mostly...

STEPPING OUT THE COMFORT ZONE

Worryingly, stress seems to be on the increase, but then so it is everywhere. Thankfully, so does awareness of it. As hard as it feels, reaching out is the first step. Remember the bit about feeling out of your comfort zone and doing things you don't want to?

Your career will shape you in so many ways. Being part of a small family business means you have to wear many hats – some of which you are technically not formally qualified to do, such as accounts (remember the engineering and not being too good at maths? Turns out you're not that bad) and hiring and firing (yes, you get to do both, neither of which are easy). You learn a big life lesson here: sometimes in life you have to do things that you would give anything to avoid doing, but they just have to be done.

It becomes obvious pretty quickly that you can't do it all by yourself, no matter how much you think you can. It will take you a



WORK SMARTER, NOT HARDER

It will take you about 25 years to realise that working a 60-hour week probably isn't the way forward, but once you get your head around pricing and charging what you are worth, things will improve and you will spend less time in the lab.

Spend time doing things you have missed, like holidays and having a life.

Obviously, you must work hard and go the extra mile to set yourself apart, but aim to work smarter, not harder. Working in a small, focused lab has its limitations.

We are well into the 2020s now and technology advancement has hit warp speed. Keeping up is expensive! Luckily for you, some very savvy and entrepreneurial technicians set up shrines to dental technology. These sacred places are called 'milling centres', and they are here to make your life much, much easier.

Keep an eye out for a young chap called Dan Barber; he is going to go a very long way in life and deservedly so. He is the person that the phrase 'going above and beyond' was coined for. He and his team at Element Digital will magic away your worries and stress.

KEEP MOVING FORWARDS

You can look forward to technicians and labs working together, sharing workloads and generally making each other's lives easier. Shame it took so long.

Around 30 years from where you are now, you will still be loving your job. It's the same, but so very different all in one. You are still making things to put in people's mouths, but the method and manner you do it is very different. It's gone from being 'not rocket science' to, well, almost being rocket science.

You will have so much backup from people you met on that new-fangled internet that nothing will seem impossible.

Keep on learning and you will keep on moving forward. [L](#)

while, but you will get the hang of asking for help when you need it. You are lucky to have such a great mentor, but you always knew that, and how handy is it that it's your own dad, so the advice is free! Double win.

THE WORLD WIDE WEB

In a decade or so, a bit of technology that has been bubbling away underground will burst to the surface and change the world. It's called the internet.

Everyone will have it and it will change the way we communicate. You and your

fellow dental technicians will be able to talk 'online' wherever and whenever you like. If you have a problem, all you have to do is ask and you will be hit with a flood of answers and help. You can share ideas, techniques, pictures of duff impressions you received that morning. This is the time your chosen industry gains strength.

Get involved in this 'online' community, learn what others are sharing and share with others what you know. You may not think it now, but 30 years in you will have a wealth of information. Well, some of it will be useless, but some of it will be good.

Add Capacity
Add Flexibility
Add Accuracy
With multi-material 3D Printing

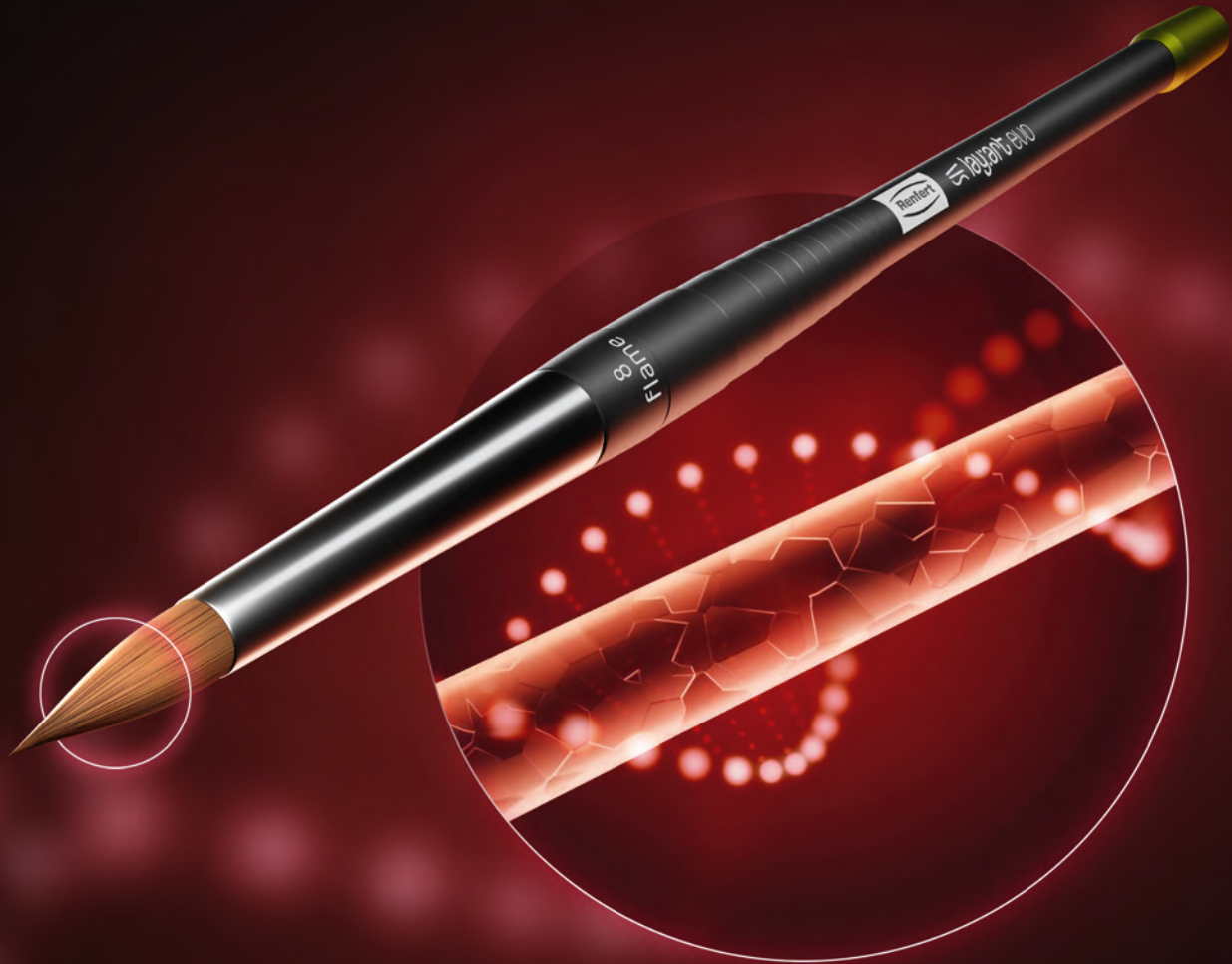


Learn more



BIONIC Hair

Exceptional durability and natural behavior



lay:art evo

The lay:art evo ceramic brush sets new standards. Its revolutionary Bionic Hair technology combines all the advantages of synthetic and natural hair brushes and impresses with an exceptionally long service life. Optimal moisture absorption and the special chemical composition of the fibers enable superb layering results.

Discover now
www.renfert.com/lay-art-evo



making work easy

Renfert

Five things I can't work without

Jagdeep Singh discusses five of his favourite things to work with



JAGDEEP SINGH

Lab owner,
Flora Orthodontics

I started my own lab, Flora Orthodontics, about nine years ago while working at King's College Hospital in London. I qualified in 2011 from Edinburgh Telford college, then worked at Archform Byte, an orthodontic lab in Sheffield, and was fortunate to be trained by Sean Fox.

Since opening my lab, I have mostly worked in the West End of London and have had the privilege to serve some of the best clinicians in the UK.

I do not do a lot of work in the lab these days, as most days are spent working on the business. But I still enjoy wire bending a few days a week.

My favourite subject in school has always been economics, and I never imagined myself working in the dental field. It was my uncle who introduced me to this trade as he always had some trouble with his teeth, and he sponsored for my education to come to the UK which gave me an amazing opportunity to grow.

Here are five of my favourite things to work with.

1. ADAM PLIERS

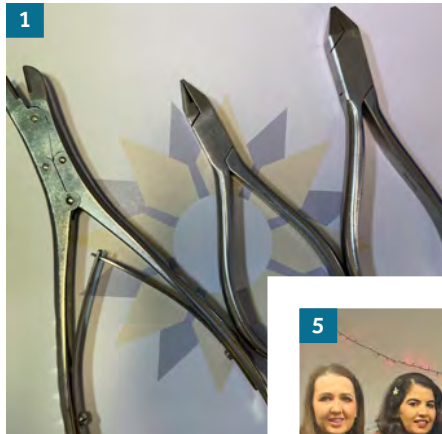
I bought some of my pliers while studying, and they must have made too many appliances to count so far.

They have been my companions while working long hours in isolation when I was a one man band lab. Adam Pliers are very high-quality and help me to make the most well-adapted clasps.

2. MECHANICAL PENCIL

In orthodontics it's all about measuring and measuring again...

My mechanical pencil helps me to mark precise points on the wire. This pencil tends to stay at its exact spots for years, witnessing the changes happening in dental technology.



3. ORTHODONTIC WIRE

Our job title is incomplete without the use of different types of wire. My favourite must be Twist Flex 0.175mm thickness wire.

I find it very therapeutic, although some technicians might find it frustrating to work with as its very thin and unforgiving if the bends aren't measured correctly.

4. APPLE IPAD

I spend more time these days with my business mentors, in online classrooms and in between zoom meetings.

I love the use of my iPad – it's portable, easy to use, and all my notes and access to important documents are in one place. I

cannot imagine a day without this wonderful tech.

5. AN AMAZING TEAM

I am very fortunate enough to have a great team at Flora Orthodontics. Each person brings their unique and diverse personality and skills. It's one of nicest teams to work with, and I am very proud of them as they continue to grow with the company while having lots of fun at work.

A good team makes everything a bit smoother, as we all know, regardless of what we do in dentistry.

It's a very demanding profession and brings its own challenges. **L**

Keeping the team content

Sarah Jordan discusses the small adjustments her lab made to promote happiness and wellbeing at work



SARAH JORDAN
Lab owner,
Complete Crown & Bridge

Hil! I'm Sarah, one of the partners at Complete Crown & Bridge. We are based in a lovely part of the country, nestled within the Chiltern Hills, which in itself helps with our aim to promote a happy and relaxing working environment. The surrounding views are just stunning!

We spend a large part of the day with our specially selected team, and if they are content, then so are we! It is important to us that a working space with a team working in unison needs to be a happy one.

You spend more time at work with colleagues than you do with your loved ones at home, so it's very important for everyone to feel comfortable. In our opinion, this is the key to building and, more importantly, retaining an amazing team.

GOOD FOOD, GOOD MOOD

Technicians are known for their long working hours, and therefore possibly missing meals due to work commitments and deadlines. So, we at Complete Crown & Bridge are here to solve that. We love to eat... I mean, who doesn't?

We have some amazing cooks among our small but perfectly formed team, and we see it as a challenge every Friday to come up with something bigger, better and tastier than the last week's offering.



WE HAVE CREATED
EVERYTHING FROM
EGGS ROYALE AND
CHILLI CON CARNE TO
A FULL CRISPY DUCK
AND PANCAKES



It gives us something to look forward to, not only filling our tummies, but taking time out to have a chat and a laugh about the past week (preferably no crying!).

We have created everything from eggs royale and chilli con carne to a full crispy duck and pancakes.

ANIMAL LOVERS

Not only do we enjoy our food, but we are also a team of animal lovers. We are close to the Hearing Dogs charity which is based roughly five miles away. We are lucky enough to have someone on our business park who volunteers for the charity.

Of course, we were more than willing to give the eight-week-old hearing dog puppies all the cuddles when they popped in to visit – how could we resist?

CALMING ENVIRONMENT

Complete Crown & Bridge recently moved to bigger premises which gave us the opportunity to decorate and furnish the

YOU SPEND MORE
TIME AT WORK WITH
COLLEAGUES THAN YOU
DO WITH YOUR LOVED
ONES AT HOME, SO IT'S
VERY IMPORTANT FOR
EVERYONE TO FEEL
COMFORTABLE

space to be a welcoming and – hopefully – calming place to work. When visitors come to see us, they always comment on what a fantastic space and location we are in.

As a lab owner, I tend to be rushing around like a maniac a lot of the time, and on top of the pressures of running the lab, I also have a busy family life with twin girls, so I see the new lab as a bit of a sanctuary for myself.

LUNCHBREAKS

Along with the cooking 'challenges' and the puppy cuddling, we really encourage our

employees to take a lunchbreak (I really need to take my own advice on this one). Go for a walk and get some time away from the bench, sit on the sofa and read a book, or wander round the business park and have a chat – anything to take you away from teeth for a while.

We love a good laugh and most of our conversations end with talking rubbish or googling whether 'that guy off the telly from the 70's' is still alive. It sounds basic, but these are a few of the things we encourage to keep the team motivated and stress-free.

Yes, we are here to make teeth at the end of the day, but we must also ensure that our wellbeing is looked after. We have a high standard and consistent work output, and we put a lot of this down to the highly talented team and our working ethics.

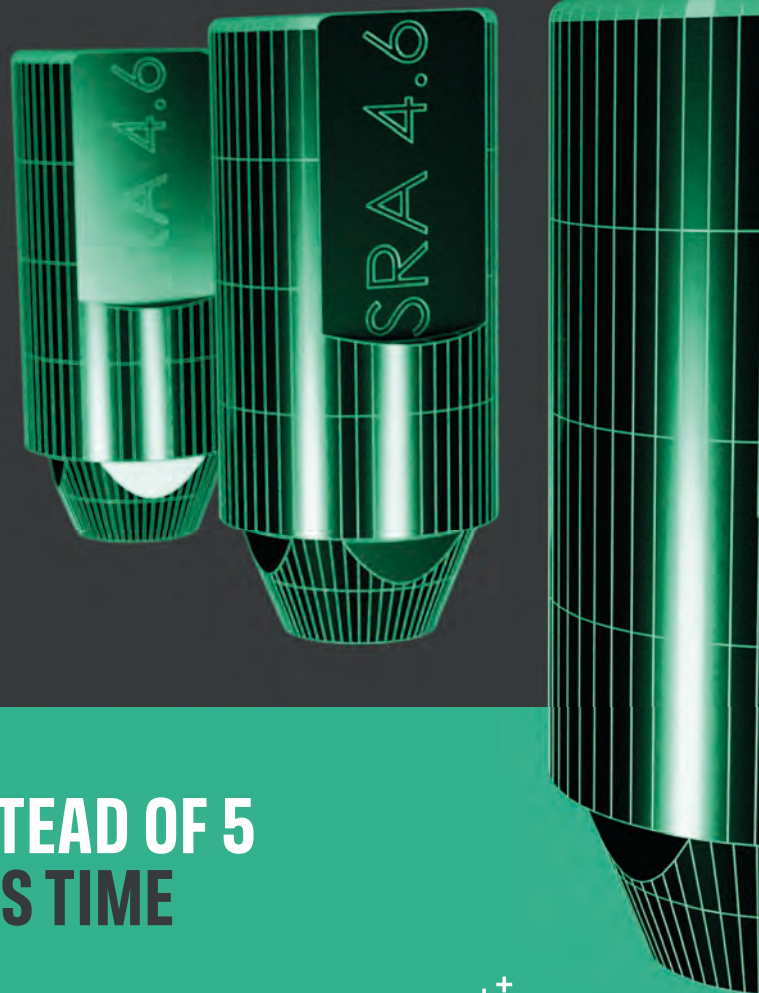
Mental health awareness is huge in society, and by making just a few small adjustments at work, we can achieve a pleasant environment for all. [L](#)

DISCOVER THE STRAUMANN® REVEX™ SCANBODY

Digital. Comfortable. Simple.



Discover more about the REVEX™ Scanbody



3 VISITS INSTEAD OF 5 40% LESS TIME



Visit 1
Digital Impression



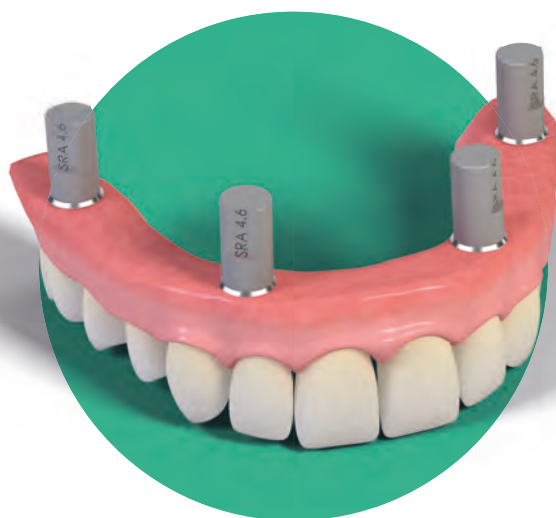
Visit 2
Try in prototype



Visit 1
Delivery

MORE

Comfort
Simplicity
Efficiency
Precision
Patient Comfort



LESS

Difficulty
Time
Visits



Contact us to learn more and order



The curious demise of dental technicians

With a worsening recruitment crisis, **Matt Everatt** questions the future of dental technology



MATT EVERATT

Editor-in-chief of *Laboratory* and director of S4S Dental Laboratory

After the pandemic, the majority of laboratories bounced back with a vengeance, with many saying they had never been busier. It would appear that demand is in exceeding supply!

We have access to new incredible technologies, the profiles of dental technicians are on the rise, and quality is arguably better than it has ever been. I couldn't think of a better time to be involved in dental technology or a better time to start a new laboratory.

THE HARD FACTS

It would be foolish of me to walk around with rose tinted glasses on all the time; I do remove them from time to time and look at the stark facts. Sometimes I have to have difficult conversations with peers about the future of dental technology, often raising issues about registration and legislation.

Let us look at some of the statistics and hard facts we must face. It is no secret that the number of registered dental technicians is on the decline. If you've tried recruiting recently, you will understand.

In December of 2008, some 7,460 dental

technicians were on the General Dental Council's (GDC) register.

Looking at the latest figures published by the GDC on 15 November 2023, we see that just 5,076 are now on the register. Almost a 32% decrease in the last 15 years. This is a huge decline in numbers, and we can't put that down to technological advances improving output and not needing as many technicians – not yet, anyway.

We have seen the number of registered dentists increasing year on year, and the demand for dental services has seen a huge increase in the number of patients seeking dental treatments. Since 2017, surveys suggest a 10% increase in private general dental services and 15% for private cosmetic work. The demand for high quality restorations, prosthesis and laboratory custom-made appliances is increasing.

BUBBLE ABOUT TO BURST

In the short term, as I mentioned in my opening comments, this is great news for labs. Demand is high, the opportunities are endless, quality of work has improved, salaries have increased, there is more investment in better equipment and prices have increased, which is attracting better customers and improving staff recruitment and retention. It is a great time to be a dental professional.

In the medium term – not even long term – we have a recruitment crisis bubble. And I

cannot help but feel it is about to burst.

In 2022, there were just 119 dental technicians added to the register with UK registrable qualifications. A further eight came from overseas, making a total of 127 newly registered dental technicians.

On average, we have lost approximately 160 dental technicians per year.

We are potentially looking at a further issue, as several reports suggest the average age of dental technician is 55-57 years old. This would suggest an even bigger problem is on the horizon when this 'top heavy' number of technicians retire in the next few years.


HUGE VOID

Judging by the number of dental technicians registering with the GDC in 2022, at the very best that equates to less than 12 students qualifying per institution and joining the profession. I have also been told that Pearsons, which oversees the BTEC qualification, plans to stop validating the qualification in 2025. This will leave a huge void in qualifications available to those people wanting to train as a dental technician.

I live in the hope that our industry representatives at the Dental Laboratories Association (DLA) and Dental Technologists Association (DTA) are already ahead of the game and have a plan for the educational needs of our future technicians.

I know there has been a lot of hard work put in by the likes of David Smith and his team at Yeovil College by bringing in the pilot scheme for dental technician apprenticeships. Having a more vocational route to a dental technology qualification does seem to be a very logical step forward.

The success, of course, will rely upon the support offered by the laboratory industry.

Apprenticeships will be a roaring success if we come together as a laboratory community and support the students, colleges and universities. 

Turning a blind eye to illegal dentistry?

With no policy processes, *Laboratory* asks if the profession's regulators are protecting illegal dental manufacture rather than stopping it

Should illegal activity in dentistry be a 'never event'?

Specifically: if a dentist chooses to fit illegally manufactured or imported dental devices, does the regulators' policy protect the dentist rather than the patient – even if the patient has problems or is harmed? Or does the current policy give those involved with illegal manufacture or import the confidence to continue?

The aim of this article is to give readers enough information to decide for themselves.

REGULATING ILLEGAL MANUFACTURE

There are concerns in the dental technician community that the regulators are not taking illegal manufacture and/or import seriously enough.

The Medicines and Healthcare products Regulatory Agency (MHRA) and the General Dental Council (GDC) have been asked for a clear and detailed account of what action they take when they become aware of illegal manufacturers or illegally manufactured or imported dental devices being fitted to patients.

The GDC was asked if it would develop a statement of fact on how it deals with this aspect of illegal dentistry. To date, it has not, and no detailed policy was received from either regulator. The GDC will say only that it 'may' take action.

In the opinion of the authors, the use of 'may' is dissembling and does not represent the transparency and consistency mentioned in the Professional Standards Authority's (PSA) principles for good regulation. It is our belief that if the regulator finds evidence of illegally manufactured dental devices being fitted, the regulator either 'does' or 'does not' take action.

NO POLICY PROCESSES

The GDC and MHRA were given two examples of illegal dentistry and asked to give exact details of their policy.

A basic example was of a manufacturer with no training, who was not registered with the MHRA, but made a simple orthodontic retainer – leaving the plastic edges sharp. No statement of manufacture was made. When the retainer was fitted to a

child, the sharp edges cut the child's gums causing them to bleed. Some people may think that legally this may constitute assault.

A more complex example was also provided: an importer who was not registered with the MHRA but was importing counterfeit dental implants. These counterfeits are replicas of a genuine and more expensive implant, machined to look like the real thing.

This importer did not keep records of this. The importer was popular because it was considerably cheaper than the real devices made within a legal framework.

No policy processes arriving at a visible sanction were received from either the GDC or MHRA for either example.

REGULATION EXPLAINED

Dental implants, crowns, bridges, dentures, and any other custom-made dental device for patients are regulated by the MHRA.

Manufacturers must register with the MHRA and comply with a number of legal requirements – including training, record keeping for traceability and material safety, and documentation – that ensure the device is safe and conforms to a basic set of standards. Not doing so is a criminal offence.

The MHRA regulates dental device manufacturers and importers. The GDC regulates some people who make dental devices (if they are GDC registrants) and all people who fit dental devices to patients.

The GDC has a duty to ensure its registrants are complying with the law. The CQC also regulates those who fit dental devices to patients. It has the remit and opportunity to ensure the legislation is being followed inside dental practices.



Laboratory

The GDC and CQC are involved in inspecting dental teaching hospitals. The Professional Standards Authority (PSA) audits the GDC and CQC (amongst others) – but it does not audit the MHRA.

The MHRA and GDC regulate differently. The MHRA only focuses on whole sections of the industry in a general way: it does not regulate individuals. By contrast, the GDC is supposed to focus on the outcome for each individual dental patient to see if the treatment meets its published standards.

There is a regulatory gap between the GDC and MHRA, but attempts by the GDC and PSA to close it have seemingly stopped. The GDC council has been unwilling to say why.

COLLABORATION NECESSARY

The MHRA and GDC have shown they can work together if they choose.

Some time ago, a dentist using counterfeit drills and equipment that had been bought online was suspended for three months

following a fitness to practice hearing. The case was discussed for months, and there can be few dentists who do not know what will happen if they are tempted to buy counterfeit equipment from online auction sites.

This was a clear case of medical regulation being 'seen' to be done: readers may wonder why the GDC and MHRA have chosen not to do this for dentists who fit illegally manufactured or imported devices.

To return to the example of illegally imported counterfeit implants given above, if the MHRA's policy was to inspect the importer and give the GDC the names of the dentists using and fitting them when it became aware, the GDC could have taken proportionate action.

By choosing not to do this it could be argued that the MHRA is giving the illegal market the confidence to continue.

We do not believe that the GDC has investigated any cases like the examples

The GDC was asked if it would develop a statement of fact on how it deals with this aspect of illegal dentistry. To date, it has not, and no detailed policy was received from either regulator

cited above. But what would happen if the GDC were to do so, and ask a dentist or nurse why they acted illegally? It's easy to imagine the potential answers: 'I did not understand the legal requirements.' Or: 'I have not been taught.'

In this case it would be a failure of education: a problem which is the GDC's remit and could be argued is a result of their education policy. The registrant may say that they thought that as the GDC and MHRA don't have a policy to take action and give visible sanctions, the law was not being enforced, so why comply?



KEMDENT



WAX BITE RIM BLOCKS

SAVE TIME & SAVE MONEY

Preformed blocks designed to save the technician time & money



Visit www.kemdent.co.uk to learn more about Kemdent Wax Bite Rim Blocks & Kemdent's extensive range of wax products



CALL NOW
t: +44 (0)1793 770090
WWW.KEMDENT.CO.UK

image: Freepik.com

THE MANY MANUFACTURERS
PRACTISING LEGALLY FACE
UNFAIR COMPETITION IN AN
UNREGULATED MARKET, WITH
THEIR EFFORTS TO COMPLY
BEING A WASTE OF TIME,
MONEY AND RESOURCES



INITIAL GUIDANCE

There have already been two attempts to get the GDC to adopt the law.

The first came in 2012, when the PSA responded to concerns. After discussions with the MHRA, GDC and Care Quality Commission (CQC) it released a statement saying: that the GDC has instituted a number of checks, including monitoring complaints about dental devices and whether a statement of manufacture was offered.

When the GDC's progress on this was checked a year later, the GDC chief executive at the time said it had been stopped as being 'too onerous'.

The second major attempt involved the GDC council itself after a visit from the MHRA to discuss the Medical Device Regulations (MDR) with the GDC.

A letter from a GDC discussed the GDC's internal project to review policy in relation to MHRA regulations.

The GDC says now that there is no information sharing agreement with the MHRA, so these processes appear to have been stopped. The MHRA and the GDC have both been asked who stopped the policy development and why.

While both organisations said they 'could' share data, neither organisation would say

why the GDC's attempt to develop a formal information sharing agreement had been stopped or who had stopped it.

STOPPING ILLEGAL DENTISTRY... OR LETTING IT CONTINUE?

It is understandable for the MHRA not to want to micromanage dentistry: that is the GDC's remit.

However, the GDC says that it does not want to regulate dental devices and points to the remit of the MHRA.

Avoiding the regulation of these issues is the cheapest option for both regulators. The GDC's past problems with large backlogs have been well documented, and this may be behind a reluctance to investigate illegal activity in this area, or why policy development has always been stopped.

Both regulators have said that they 'could' work together, so why is this not happening? The failure to do so only leaves illegal dentistry of this nature unchallenged, and gives illegal manufacturers confidence to continue.

The many manufacturers practising legally face unfair competition in an unregulated market, with their efforts to comply being a waste of time, money and resources. [L](#)

CREDITS

This article has been developed by a number of committed colleagues over the course of several years, who have worked hard to get to the truth behind regulating the manufacture of dental devices in the UK.

The information herein comes from a variety of organisations, including a number of dental editors at a range of different publications (including those in the Dentistry stable and beyond). While every effort has been made to get the information right, providing clear information becomes very difficult when faced with a lack of transparency from the organisations involved.

We thank our esteemed colleagues for their work in putting this article together.

For more information, visit the MHRA public access registration database (PAR) at pard.mhra.gov.uk

READ THE FULL ARTICLE

on Dentistry.co.uk or
scan the QR code



SHARE YOUR THOUGHTS

on the regulation of illegal manufacture with
newsdesk@fmc.co.uk

Labs and dentists have never collaborated so efficiently before



Want to know more?
Email sales@dmg-dental.co.uk or call 01656 789 401

Getting started with 3D printing has never been easier with DentaMile from DMG. Our solutions connect partners in the dental clinic and in the lab. What's more, customisable workflows open up all kinds of collaboration options - for greater patient performance.

DentaMile: 3D the way I want it!



STRONGEST in their class



EXCEPTIONAL MATERIAL PROVIDING STRENGTH FOR CAD/CAM RESTORATION

- For the fabrication of definitive crowns, inlays, onlays, veneers and implant-supported crowns
- Highly aesthetic due to multicolor shades – ideal for the anterior region
- Highest filler content (86 % w/w) for long-lasting durable restorations
- Resembles natural teeth perfectly
- No firing required
- Can be polished and repaired optimally



Grandio blocs / Grandio disc



Decoding digital marketing jargon – part two



A strong online presence is essential for businesses in every industry. Here, **Eleanor Pittard** explores two key components of digital marketing



ELEANOR PITTARD

Co-director and owner of Hive Dental Laboratory

The online world is ever-evolving, and staying updated on industry trends and best practices is crucial for sustained success in attracting and retaining patients. As a dental lab, understanding the world of website development or content marketing can be daunting, especially when you encounter industry-specific jargon.

Hopefully, part two of this mini-series will help you to navigate the complex landscape of these concepts by demystifying key terminology you might come across.

WEBSITE DEVELOPMENT

A well-structured, user-friendly website is the foundation of a successful online presence. When discussing how your website will be created, you may come across a few different jargon terms:

CMS (content management system)

A CMS is a platform that allows you to easily manage and update your website's content. Wordpress is a popular CMS for dental websites in the UK.

You might find that your company has its own system, but either way they should give you some access to it so that you can update your website with fresh and interesting content regularly.

Responsive design

With a significant portion of web traffic coming from mobile devices, it's crucial that your website is designed to be visually appealing and functional on smartphones and tablets. This means that as the screen size changes, the appearance of the content should change to match instead of just being very small on a screen or being all jumbled up. Have a look at how your website is viewed to see how people access it via a smaller screen.

UX (user experience)

UX design focuses on creating a seamless and enjoyable experience for visitors to your website.

It includes aspects like site navigation, page load times and mobile friendliness.

SSL certificate

This is a security feature that ensures a secure connection between your website and its visitors. It's crucial for protecting patient information on your site and is something that should be automatically built in by your website company.

CONTENT MARKETING

High-quality, informative content is essential to engage and convert visitors into patients. You are trying to present solutions to problems in a quick, efficient and understandable manner, to be relevant and up to date, and to entertain where possible to encourage them to share your content. You may come across the following terms:

High-quality, informative content is essential to engage and convert visitors into patients

Blogging

Blog posts are mini articles that normally sit under a 'news' or 'blog' section on your website. They can cover any topic and are normally between 750 – 1,250 words

Regularly publishing blog posts can improve your SEO, showcase your expertise and engage with patients. They are also great to share on your social media because they encourage people to come back to your website.

CTAs (calls to action)

These are prompts that encourage visitors to take a specific action, like booking an appointment, subscribing to your newsletter or contacting your lab. They should be bold and obvious, and make sure the links work as there is nothing more frustrating than a link on a website that does not work!

Evergreen content

This is content that remains relevant over time. Creating evergreen resources such as dental care tips or FAQ pages can provide long-term value. [L](#)

CONNECT WITH ELEANOR

 @dentalmanager



JOHN WINTER



FOR ALL YOUR DIGITAL MANUFACTURING NEEDS

From milling wax to PEEK and PMMA, high quality metal and stunning zirconia, through to innovative, cutting-edge G-Cam and more... **We've got you covered.**

Find out more today

Call **01422 364 213** or email **sales@johnwinter.co.uk**



It's all about communication

Jake Penman discusses the not-so-secret sauce in building a strong client base and running a successful laboratory



JAKE PENMAN
Laboratory manager,
Dental Excellence

Be it within the lab flow, between lab partners or between the laboratory and the dentists, good communication is vital in modern dentistry.

In this article, I am going to talk about the importance of communication between the lab and the dentist. I will explore just how vital this relationship is, firstly in building your client base but also in harnessing those strong, healthy partnerships. Trust me, it's never been so important!

THE BEDROCK OF PROSPERITY

The importance of a good interrelationship between the dental lab and the dentist cannot be overstated. It is the bedrock on which successful dental restorations are built. As technicians, we are tasked to produce a large array of dental appliances such as crowns, bridges and dentures, all of which have their own very specific set of instructions that will need to be listed on the prescription.

This is only the first line of communication though, as there are many other ways of communicating.

Intraoral photos, for example, are now standard practice for private work and dentists are becoming professional photographers. They are now picking up surface textures, characterisation and the complexity of depth and shadowing that a tooth exhibits.

Some go one step further with shade-taking software that blends photography and technology, giving the ceramist a recipe to follow when building up the restoration.

TWO-WAY RELATIONSHIP

Communication goes both ways. It doesn't end once the instructions have been given. There needs to be continued open communication channels between dentist and lab starting with checking the initial scan/impression. A lot of potential problems can be solved at this stage with a simple phone call or message. Then the case discussions can continue.

Technicians have a world of knowledge to put on the table and quality dentists will utilise

this with in-depth conversations right from the start. A Whatsapp group with the dentist, nurse and key members in the lab can be priceless and is always recommended; ideas and information can be passed around directly and instantly this way.

BUILDING YOUR CLIENT BASE


Good communication can also be used as a tool to build your client base. Multiple studies show that a strong one-to-one relationship with open communication channels and mutual trust is a key component when choosing the laboratory that dentists want to collaborate with.

Social media can be a fantastic way to showcase the strengths of your laboratory and also provide a direct line of communication between lab and dentist. Dentists can enquire about services and share feedback with minimum effort. This increases accessibility and fosters strong relationships, which will drive business growth for both parties. Here, consistency is key in posting content. Try to keep to a posting schedule, eg at least once a day, as this increases visibility and builds a strong reputation.

COLLABORATIVE ENVIRONMENT

In conclusion, the importance of communication is the key to building a strong, successful client base. You must have multiple avenues of communication, not only to showcase your strengths, but to bring in any potential clients.

It's imperative that the dentist has a direct line to the lab leader and key members of the team as it underpins the delivery of patient-centred care. This also ensures the precision and quality of the resulting restorations.

Your goal as a laboratory should always be to foster a collaborative environment that will enhance treatment outcomes, elevate patient satisfaction and prevent unnecessary problems arising. 



CONFIDENCE FOR DIGITAL

EVOLUTION

The Lucitone Digital Print Denture™ System allows you to scale up production and drive profitability, without sacrificing the material standards established with traditional products.

30%←

of the global population aged 65 years and older suffer from edentulism¹

703M↑

global older population is driving increased denture demands at labs²

50%↓

decline in labs able to meet the growing demand. Labs are declining and consolidating³



Design



Try-in/Teeth



Print Denture Base



Fuse



Cure

Visit our website for more information at <http://www.dentsplysirona.com/lucitonedigitalprint>

¹U.S. Market Report Suite for Overdentures and Implant Bridges, iData Research, June 2018:29.

²World Population Ageing 2019, Department of Economic and Social Affairs, 2019:2.

³AEGIS Communications, By Jason Mazda. "The Effect of Consolidation: Inside Dental Technology," October 2019 | Inside Dental Technology, 1 Oct. 2019.

Making waves

Simon Lane discusses his newest acquisitions and the impact he hopes to make on the dental industry



SIMON LANE
Managing director,
Y80 Group

WHAT'S YOUR BACKGROUND IN DENTISTRY?

My name is Simon Lane. I own a selection of companies, headed by a parent company called Y80 Group Ltd, which was formed to host a family of businesses, not exclusively in the dental supply sector, but certainly majoring in that space.

I have a history in dentistry: I was managing director of Skillbond until I left in 2002 to pursue other things. I've worked in various fields, from fabrics to fresh produce, but an opportunity came up for me in film and tv during COVID-19 that did very well.

I've got experience, I've got business acumen, I've got the money – so when Peter Gowers announced he wanted to sell Panadent, it felt like a phenomenal opportunity to come back and build a group in dentistry.

I really enjoyed my time in dentistry: I didn't leave with anything other than a very, very heavy heart. There's more than 60 million people in the UK, all of whom should, at some stage in their lives, actually go to the dentist. But the reality is the industry is terribly small. Everybody knows everybody. We've gone away from crown and bridge, which was a very mechanical, artistic operation into highly digitised hugely scientific ways of producing restorations – but regardless of the sophistication of the product, the people are still the same. They're just retrained.

So, coming back for me was a no brainer.

YOU MENTION BUILDING A GROUP – WHAT'S THE DRIVER BEHIND YOUR ACQUISITION PLANS?

I have seen a lot of people who are minded to sell their business but are holding back because they know that if it's corporately purchased, it'll just get broken up. All the years of trying to keep the brand alive, of preserving what their father or uncle built, just gone.

So, what I'm doing is different: I am all about

preserving that historical provenance of these businesses and taking them into the sort of profits that I find acceptable, just as I did with Skillbond years ago.

With some big, high-profile exceptions, this is not a corporate industry. It's an industry where you 'cuddle' your customer and build relationships that last for years.

That which I've noticed in the lab field is that corporate attitudes are being injected into much smaller companies thinking it's the right thing to do. We know from the boots on the ground that it's exactly what they don't want.

It's like the head of HR for Ford being in charge of a small village garage and trying to implement Ford company policies on the workforce of three mechanics, one petrol pump attendant, and the salesman selling the used cars on the lot. It doesn't work.

You shouldn't have to have an appointment with your managing director to talk about something that really matters to you – you should be able to pop your head around the door.

WHAT CAN YOU SAY ABOUT THE NEWEST ADDITIONS TO THE FOLD – BRACON AND MINAMINT?

I wanted the Bracon name in the portfolio I was building.

In all honesty, I underestimated the company – I always saw it as a small player. But on the day I walked through the doors, it took me just an hour to realise that it's an absolutely amazing company. It's staffed by 25 totally dedicated, thriving people. The phone never stops ringing. People are loyal to Bracon in a way that other sectors wouldn't believe, which could only happen in dentistry.

The warehouse can't get goods out of the door fast enough – all it needed was somebody who was really commercially minded to take it

into profit. And within the first two weeks, we achieved that.

Minamint is a totally different story. It's a new company, set up to sell some of the Panadent surgery products that we own the IP for, rather than being the agency holder for. I saw the potential for these, and we're now in talks to take them to the US, which I'm really excited about. A very different company to Bracon, but a good fit for the portfolio!


ARE YOU PLANNING ANY MORE ACQUISITIONS?

The jungle drums are banging; the feedback from trusted sources is that cages have been rattled – this has to be good for the industry as nothing much apart from the technology has changed for years!

My overall ambition is to bring as many privately owned dental supply companies as is possible in to the Y80 Group – so the short answer is yes. I am already planning how to manage the wider portfolio and I am talking to key industry personnel that I respect in order to manage the challenge.

All the companies so far have come under the banner in less than 10 months. It might take three years to get the next one – but if you're a betting person you might also realise there's a distinct possibility that the group will be at the capacity I'm aiming for within a year.

So, if you're a privately owned business currently operating in dentistry or a related sector, and you have a track record of reputational excellence – not profit, mind you – and you have the slightest inclination that you would like to sell?

Knock on my door: we'll have a chat. 

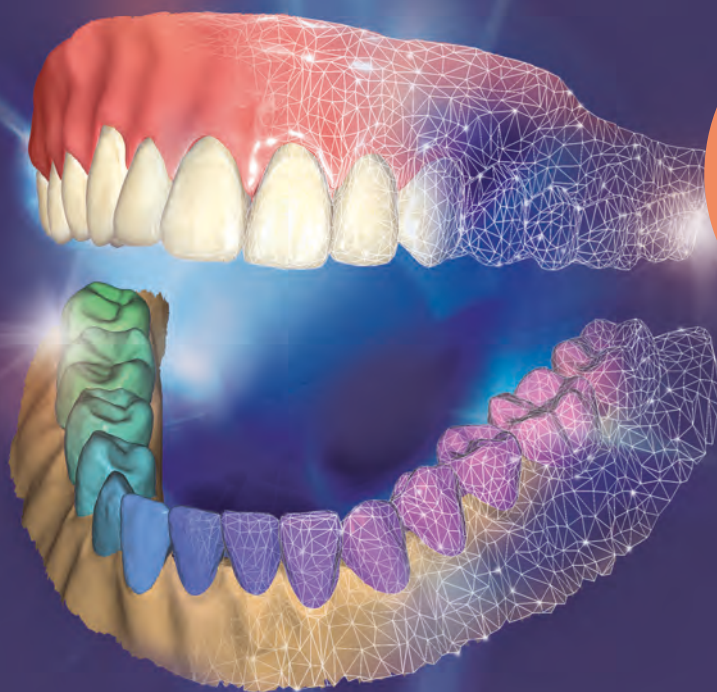


Imagine the **CAD**ABILITIES

exocad

FOR **MORE** **AUTOMATION**

UPGRADE NOW!



60+

**NEW
FEATURES**

DentalCAD[®] 3.2 Elefsina

More than 60 new features for maximum automation and speed make *DentalCAD 3.2 Elefsina* the first choice for dental CAD designers! Developed with your needs in mind—copy dentures to inexpensively produce new ones, fix imperfect intraoral scans, integrate compact milling machines and more. The new release also improves lab-dentist collaboration with the iTero-exocad Connector™. Power up your results. Expand your indications.

Contact your reseller to upgrade now.



More intuitive workflows from CAD to CAM

Exocad introduces Dentalcad 3.2 Elefsina software with more than 60 new features for more automation and speed

Exocad, an Align Technology company and a leading dental CAD/CAM software provider, has announced the release of Dentalcad 3.2 Elefsina, the latest version of its globally renowned CAD software for labs and full-service clinics.

With more than 60 new features created to optimally fulfil customers' requirements, the software release offers new and improved workflows – from treatment planning to design and manufacturing.

'Dentalcad 3.2 Elefsina delivers the exciting functionalities dental experts have been waiting for,' said Tillmann Steinbrecher, CEO of Exocad. 'The new release offers more automation, speed and intuitive workflows from CAD to CAM.'

MORE AUTOMATION AND SEAMLESS INTEGRATION

Dentalcad 3.2 Elefsina includes many time-saving features. The new preparation margin repair tool enables users to make the most out of imperfect intraoral scans – users can fix margins to get an acceptable result despite artifacts or holes in the scan.

A new auto-articulator offers fully automatic consideration of dynamic occlusion. Also included is a new integration of compact milling machines. Users can select their preferred block and start production seamlessly from within their CAD software, and switch tooth libraries while keeping their previous setup.

BETTER VISUALISATION

New tools in the Smile Creator module bring users more predictability and better planning options. Users can now design virtual gingiva for more realistic outcomes and create smiles based on patients' natural teeth.

The ability to adjust the 3D rendering to the camera's focal length enables a more precise photo-driven smile design.

IMPROVED BITE SPLINT AND FULL DENTURE MODULE

With the Bite Splint Module in Dentalcad 3.2 Elefsina, users can now enjoy more automation in their bite splint design and save design time. The Full Denture Module includes a new feature to rapidly copy an existing denture in a highly automated workflow. This provides a faster and more cost-effective alternative to relining, leveraging recent advances in 3D printing.

In addition, dentures on ball attachments are now supported. An add-on module for the Ivoclar Ivotion Denture System is now available as well, in conjunction with a dedicated tooth library, available from Ivoclar.

REDEFINING SEAMLESS WORKFLOWS

To improve collaboration between labs and doctors, clinicians can now share external case-related files like images, videos and X-rays with exocad Dentalcad users via the My Itero portal. The new bi-directional case communication allows Dentalcad users to share their 3D designs with the dentist for an efficient preview-and-approval process.

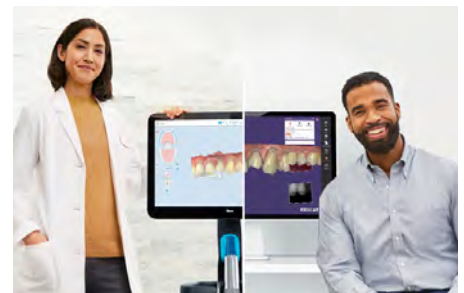
Within the CAD software, lab users can also validate margins with Itero intraoral camera images and visualise internal tooth structure with Itero NIRI (near infra-red imagery) technology.

Other major highlights of the Dentalcad 3.2 Elefsina release include:

- Design post and core restorations so that a crown matching the core can be designed in the same step (beta)
- New Virtual Articulator support for Gamma Dental Reference SL, Kavo Protarevo 5B, plus an anatomical 'in-skull' articulator visualisation
- An easier and more efficient process for titanium bases supporting variable screw channel angulation.



With the Smile Creator module, users can now design virtual gingiva for more realistic outcomes and create smiles based on patients' natural teeth (source: Exocad)



To improve collaboration between labs and doctors, clinicians can now share external case-related files like images, videos and X-rays with Exocad Dentalcad users via the My Itero portal (source: Exocad)

INSIGHTS 2024

Exocad will offer hands-on demonstrations of the new Dentalcad 3.2 Elefsina release at various upcoming dental exhibitions, including at Insights 2024, the company's global event, taking place 9-10 May 2024 in Palma de Mallorca, Spain.

The two-day event will include numerous opportunities for attendees to discover more about the latest Elefsina features from dental industry leaders and application specialists. [L](#)

MORE INFORMATION

is available at exocad.com/insights2024

Easy 3D printing Phrozen Sonic XL 4K 2022

Qualified by Dreve

Compact LCD desktop printer with 52µ print precision thanks to 4K display and high light intensity for fast construction times. The high-quality processed full metal housing, a huge build platform and an easy handling of the vat make the Dreve version of the Sonic XL 4K 2022 a user-friendly 3D printer for all dental applications.



- + Stainless steel build platform
- + USB stick incl. software and useful test data
- + Service card and professional support by 3D experts

dreve.com/phrozen



Efficient, energy-saving sintering

Zirkonzahn

Thanks to its compact design and state-of-the-art sintering technology, the new Zirkonofen 600/V4 sintering furnace is extremely energy-saving.

With space for up to 60 zirconia structures and two MoSi₂ high-performance heating elements, it reaches heating rates of up to 60°C/min and features a new automated door for faster cooling. Thin zirconia elements can be sintered in less than three hours with an electric consumption lower than 1.5 kWh. The intelligent control system developed in-house monitors the furnace status with an accuracy of within 2°C at 1600°C. In combination with the fully automated door, it keeps a homogenous and linear temperature curve in the sintering chamber.

The Zirkonofen 600/V4 also has a clearly structured and easy-to-use interface. Via local area network (LAN) or wifi, the user can install over-the-air (OTA) updates independently, adding new functions and improving sintering performances and efficiency. Moreover, the software recognises the most frequently used programs, saving them as favourites and ensuring an easier selection when starting a new sintering cycle.

Besides the large number of pre-set programs perfectly adapted to each Zirkonzahn zirconia, individual sintering programs can be created both via the seven-inch touchscreen on the furnace or the new Zirkonzahn.app. For maximum reliability, all processes of the sintering furnace can be viewed and monitored via the app.

After a power failure, the software checks whether the sintering program can be completed regularly without compromising the result, or if the sintering process should be interrupted, informing the user.

www.zirkonzahn.com



Zirkonzahn
Human Zirconium Technology

High quality with aeronautical expertise

Straumann

The Straumann Group is proud to have partnered with Createch Medical, a direct-to-lab milling service that can help dental laboratories expand their business.

Createch Medical manufactures high-grade CAD/CAM frameworks, designed and built in a strict environment to ensure the highest-quality standards. Controlled and executed by Createch Medical with aeronautical technology, excellence of all products is ensured for total peace of mind.

When you outsource to Createch Medical, you have access to outstanding technology without having to make any additional investment. You can focus on other areas of your business, such as supporting clients and building rapport, while still delivering beautiful prostheses that last.

www.straumann.com



straumanngroup

Achieving efficient prosthodontic workflows

Alistair Mayoh explains how to optimise prosthodontic workflows to satisfy the technician, dentist and patient



ALISTAIR MAYOH
Marketing director,
Kemdent

There are many components within the prosthodontic workflow that can impact the success of outcomes achieved. These include everything from the clinician's initial assessment and data capture to the skill of the technician, and all the techniques, technologies and products used along the way.

By optimising the process and delivering a prosthesis that is accurate, functional and aesthetic, patient satisfaction is maximised, and both technician and dentist can benefit.

COMMUNICATION

To achieve the highest standards, collaboration between technician and dentist is crucial. Both parties need to understand how the other works to exchange the right amount of information for each particular case. A relationship needs to be formed, one based on mutual respect that enables both individuals to perform their roles to the best of their abilities.

Communication is central to building this rapport and working together on cases. Conversations should be frank, open and honest, and they should occur regularly when first establishing a working relationship. As you become more familiar with each other, communication can become short-hand and less frequent without compromising quality of data exchanged.

EFFICIENCY

For dental technicians, the products and materials used for the fabrication of prostheses can have a significant influence on the quality of the final solutions. This is not only relevant for the manufacture of permanent prostheses – the try-in stage is perhaps even more important as it sets the

precedent for the entire treatment process and patient experience. There is nothing more frustrating for the technician, dentist and patient than excessive wax-ups and try-ins, with multiple and substantial changes – or even remakes – required. It is a waste of time, money and effort for the professional team and can create a poor patient experience, leading to their reduced satisfaction.

As such, maximising efficiency with careful planning and precise wax-ups will improve the process for all involved. Minor alterations are to be expected, but technicians today have access to the skills and products they need to minimise unnecessary adjustments.

OPTIMISING MODELS

Part of the planning process for prosthetic indications like denture fabrications is the creation of a mock-up model. A good model helps to manage patient expectations, while providing essential information to the dentist and technician regarding function and aesthetics.

Where appropriate, the mock-up should recreate the harmony between hard and soft tissue for balanced aesthetics. While constructing the mock-up, precision is key. Any distortions of the wax models can lead to unnecessary adjustments which are costly in terms of money and time.

This can come down to the quality of the modelling wax used – the most effective wax will be stable to prevent distortions. This means no shrinking or expanding during the process to ensure that the teeth remain in the exact positions needed for the designed denture and for promoting good marginal fit.

A quality wax will also be easy to trim without flaking and should provide a good finish once polished.

Kemdent Anutex Modelling Wax delivers in each of these areas. As the market leader for modelling wax in the UK, it is unmatched in handling characteristics and features tightly controlled and consistent softening properties to optimise efficiency in the lab and eliminate the risk of flaking. It is also easy to trim, and presents a smooth and glossy finish after gentle flaming.

FROM START TO FINISH

Colin Butchart from Dorset Denture Clinic comments: 'Anutex Wax adapts to plaster models well when warmed over a Bunsen burner without stretching or tearing. Having

used Anutex for many years, I have always found it to boil out well, without leaving residue on the teeth.

'It also carves easily and leaves a smooth surface once it has been flamed. Once cold, it polishes to a high shine when rubbed with cotton wool under cold water. In addition,

Kemdent's customer service is very professional and products always arrive the following day after placement of an order.'

An accurate model makes it simpler for dentist and technician to deliver an exceptional final prosthesis that the patient will love. Enhancing efficiency of the process from start to finish with close collaboration and quality products provides a better experience for all involved. [L](#)



FOR MORE INFORMATION

about Kemdent Anutex Modelling Wax, or any other market-leading solutions available, please visit www.kemdent.co.uk or call 01793 770 256

AWARDS SEASON IS COMING

CLINICAL
DENTISTRY
AWARDS

THE
Dentistry
AWARDS



Dentistry
CLINICAL
CASE AWARDS

Dentistry
Scotland
AWARDS

PRIVATE
DENTISTRY AWARDS

IRISH
DENTISTRY
AWARDS



Dental labs can enhance 3D printing capabilities with multi-material technology

Ron Ellenbogen discusses the benefits of multi-material 3D printing



RON ELLENBOGEN

Head of product and business development, dental, Stratasys

The adoption of 3D printing technology within dental labs is maturing rapidly, with an estimated 96% of dental labs with more than five employees using 3D printers in their facilities. This expansion is anticipated to maintain a compound annual growth rate (CAGR) of 26.1% from 2023 to 2030.

The evidence is clear: dental labs have embraced 3D printing as a preferred technology as materials improve.

As demand for dental applications from dental practices continues to grow, labs are considering their options to scale operations to meet the growing demand. They need to ask themselves, what technologies are available? What materials are available? What are the additional use cases for 3D printing? Do they need to grow their headcount?

For labs to scale and grow their 3D print business, they need to also think beyond just single-material dental 3D printers. When these printers were first introduced into the market, labs invested in them to accelerate their production time, increase workflow, and advance their production capabilities.



Single-material 3D printers made sense at the time as they met the needs of the dental lab market and enabled them to print numerous parts, such as models, surgical guides and gingiva masks.

But by continuing to solely rely on single-material 3D printers, over time more technical labour and maintenance is needed. As market demand continues to increase, so too does the need for additional solutions to complement existing fleets of single-material printers. That is where multi-material 3D printing capabilities come into play.

THE MARKET IS READY

Dental labs strive to scale part production by optimising lab resources and consistently maintaining quality and accuracy. Multi-material 3D printing can provide an effective and efficient solution with the simultaneous production of diverse applications, such as crown and bridge, implant, orthodontic models, surgical guides, gingiva masks and indirect bonding trays.

The platform boasts a high-capacity print tray that can fit 16 full implant cases including a model, a surgical guide and the gingiva mask. Multi-material, mixed application printing means there is no need to change materials between runs or post cure the parts when they come off the printer.

Multi-material printing can also be implemented to print full-colour parts such as diagnostic dental models or monolithic, highly aesthetic dentures. This technology significantly minimises the need for extensive post-processing by technicians, resulting in a streamlined workflow that effectively boosts production capacity.

Additionally, the implementation of multi-material 3D printers contributes to a safer work environment. The printers' enclosed design allows for loading resin canisters directly into the machine,



eliminating the need for operators to handle uncured or hazardous materials during the printing process.

Dental labs have the opportunity to take advantage of new technologies and increase their 3D printing capabilities. They can accelerate their growth potential by going beyond single-material printers (which still have their place in today's dental labs) and embracing technology that can be used 24 hours a day to create numerous dental applications without increasing overhead costs. The technologies in today's multi-material printers increase accuracy, streamline workflow, and increase technicians and lab productivity, as well as product output and overall quality. Because of these reasons, now is a better time than ever for labs to enhance their existing 3D printing capabilities with multi-material printers for the future production needs that the market demands.

The utilisation of multi-material 3D printers brings advantages to both dental labs and their customers. Faster output means faster smiles. And faster smiles means more time to take on new customers and create new smiles.



FOR MORE INFORMATION

contact +44 (0) 7977 763056 or Anthony.Gillitt@stratasys.com

Qu-resin

Quick-setting, self-curing denture repair resin based on diacrylate for intraoral and extraoral (direct and indirect) use.

The perfect material when it comes to speed – for either practices or laboratories. Qu-resin rosa and Qu-resin dentine for standard processing in the laboratory and for direct use in situ. Qu-resin covers a wide indication range thanks to simple handling, quick setting and two colors (pink and dentine).



FOR ALL CONCERNED

Laboratory

Compared to the conventional method using cold-curing resin and polymerization in the pressure pot, Qu-resin excels by reducing the processing time considerably. No pressure pot is required for Qu-resin since the self-curing resin sets quickly.

Dentist

Qu-resin for intraoral use. The dentist can perform chairside, denture repairs or locator pickups reducing the amount of time considerably both for themselves and the patient.

Patient

Qu-resin minimizes the waiting time for the patient and provides high comfort. Correction can be completed in a single appointment by using this denture repair resin.

Zirkonzahn new lecture tour 2024

Zirkonzahn discusses its upcoming lecture tour, titled 'Predictable and Consistent Results – Common Mistakes and Solutions to Overcome them Successfully'

The dental company Zirkonzahn (South Tyrol, Italy) has announced its new lecture tour for 2024, coming to several cities around the UK and Ireland throughout the year.

The first dates of the tour will reach Brighton, London, Milton Keynes and Edinburgh from March 11th to 14th. The lecture, with the title 'Predictable and consistent results – Common mistakes and solutions to overcome them successfully' will answer some common questions that may arise when dealing with complex zirconia restorations.

How can I achieve a good predictable outcome when working with zirconia? What do I have to pay attention to in order to avoid common errors in the dental workflow? DT Kilian Plunger (CAD/CAM expert, course instructor and collaborator in Zirkonzahn dental technical Support and R&D department) will draw attention to technical aspects and factors that influence the final result of a zirconia restoration.

CREATING HIGH-END, PREDICTABLE RESULTS

By showing a real, complex case restoration, the lecturer will illustrate the challenges faced during each workflow step, from patient diagnostic to characterisation, providing keys to overcome them successfully. Special attention will be given to impression-taking, occlusion registration, passivity check and correct material selection.

The process of creating high-end, predictable zirconia solutions also involves a well-established communication between dental technicians, clinicians and surgeons. For this reason, the lecturer will also focus on the latest digital diagnostic devices – a key aspect for improving communication within the treatment team.



The lecture will focus on a complex restoration 100% digitally created, starting from diagnostic analysis and complete 3D virtual reproduction of the patient's oral and extraoral anatomy without loss in information: initial situation (left) and first digital tooth setup (right)



Digital planning of the gingivectomy in the Zirkonzahn.Modifier software, definition of the new occlusion, and design of the temporary mock-up – the key tool for checking and reproducing all workflow steps up to the final restoration

Zirkonzahn[®]
Human Zirconium Technology

FOR MORE INFORMATION
and registration, scan the QR code or contact +39 0474 066 662 or carmen.ausserhofer@zirkonzahn.com

Enhanced CPD

LAB/SPRING/SHAW/PAGE 14

1. What had the patient in this case lost following a violent attack?

- a. Most of the left auricle or pinna (ear)
- b. Most of the tragus
- c. A small aspect of the lobe
- d. All of the above

2. Where were the adhesive retained auricular prostheses manufactured?

- a. Manchester
- b. Leeds
- c. Chesterfield
- d. Sheffield

3. How was the impression of the healthy right ear taken?

- a. Plasticine
- b. Dental alginate
- c. Digital scanner
- d. Carved from wax

4. Following the try-on and establishing the correct intrinsic silicone colour, the wax ear was invested in...

- a. A standard brass flask
- b. A standard bronze flask
- c. A standard aluminium flask
- d. A standard plastic flask

LAB/SPRING/FRKETIN/PAGE 17

1. How long had the patient in this case had her dentures for?

- a. More than three decades
- b. More than four decades
- c. More than five decades
- d. More than six decades

2. Following the use of a Kois dentofacial analyser on the upper bite block, the upper bite was adjusted to ensure how much was showing in repose position?

- a. One to two millimetres
- b. Two to three millimetres
- c. Three to four millimetres
- d. It wasn't adjusted

3. The Ivobase system was employed for the processing phase. This advanced system...

- a. Securely bonds the materials
- b. Enhances the overall fit
- c. Enhances durability of the dentures
- d. All of the above

4. After the dentures underwent processing, the gingival part was refined. How much cutback occurred for the addition of pink composite?

- a. 0.5mm
- b. 1mm
- c. 1.5mm
- d. 2mm



NEXT STEP

Enhanced CPD hours are only available to Dentistry CPD members.

Each article is equivalent to one hour of enhanced CPD. All of *Laboratory's* enhanced CPD is fulfilled online – please do not post answers for marking.

Earning enhanced CPD hours with *Laboratory* is quick and easy:

- Scan the QR code or visit dentistry.co.uk/cpd and search for the article by author's surname
- Read the article and complete the four-question test
- Upon successful completion of each article's questions, a certificate will be generated instantly and stored online in your subscriber account ready for you to print at any time.



To provide feedback on these articles and enhanced CPD, email cpdsupport@fmc.co.uk.

QUALITY CONTROL

An essential part of continuing professional development is quality control. This gives you the chance to provide feedback on the quality of these articles.

This is not essential, but please feel free to contact us on cpdsupport@fmc.co.uk.

When providing feedback, please include the following details in your email:

- ECPD article title and author
- Comments on the ECPD offered
- Title
- First name
- Surname
- GDC number
- Subscriber number
- Address (including postcode)
- Telephone number.

Next Level Efficiency

Case-by-Case Clear Aligner Production



1 By-Case Pre-processing

- Auto OCR Generation
- Auto Block-Out
- Auto Trimline Detection
- Auto Fixture Adding



2 By-Case Production

- Case-by-Case Printing
- Automated Part Removal
- Model Collection by Case



ULTRACRAFT
LARGE PCU



3 By-Case Post-processing

- Wash and Cure without
Manual Sorting



4 By-Case Auto Final-processing

- Final Marking and Trimming
via OCR Code



ULTRACRAFT
A3D ORTHO

Contact the HeyGears team to learn more:

 www.heygears.com  sales@heygears.com  +1 (318) 353-4295 (Global)



Follow Us @HeyGears3D

DATE
SATURDAY 9 MARCH
2024

VENUE
MANCHESTER CENTRAL
CONVENTION
COMPLEX

NORTH OF ENGLAND Dentistry SHOW

LABORATORY
THEATRE



**REGISTER
NOW!**

THE NORTH'S LARGEST
DENTAL SHOWCASE & DENTISTRY SHOW

SPEAKER	TITLE	SPONSOR
Sean Ward 	Case studies "Old implants" & fibrous ridges	
Ian Smith 	The Growth Cycle; How joining up the whole organisation, with a 'customer value thread' leads to a growth year on year	
Craig Broughton 	Management of combination syndrome	
Eboni-Rose Williams 	3D Printing beginners guide for dental technicians	
Prasanta Banerjee 	Introduce Efficiencies and Increase your practice profitability's with Dentuvo digital dentures.	
Karl Jensen 	Digital SLM RPD's – The shift from analogue to digital made easy the 3shape way.	

HEADLINE SPONSOR

Trycare

ORAL HEALTH SPONSOR

LISTERINE

DIGITAL SPONSOR



EDUCATION SPONSOR

**Dentistry
CPD**

COMPLIANCE SPONSOR

**Dentistry
Compliance**

GOLD SPONSORS



Discover the speaker line up and register now

www.dentistry.co.uk/north-show