Are your patients’ dentures truly clean?

Even visibly clean dentures can have hidden dangers.

The denture surface contains pores in which microorganisms can multiply and thrive. Up to 80% of patients use toothpaste to clean their dentures. As dentures are approximately 10x softer than enamel, the abrasive nature of toothpaste can create scratches, which may lead to increased microbial colonisation, resulting in gum irritation or denture malodour.

- Reduction in depth of abrasion compared with a regular toothpaste

Corega® Extradent cleanser – specially designed for dentures

• Corega® Extradent cleanser offers patients the dual benefits of mechanical and chemical cleansing

• Corega® Extradent cleanser is proven to penetrate the biofilm and kill microorganisms even within hard-to-reach denture surface pores

• Corega® Extradent cleanser is non-abrasive Unlike toothpaste, and does not create scratches, which can lead to increased microbial colonisation

Corega® was associated with significant (p<0.005) reduction in depth of abrasion compared with a regular toothpaste.*

**MONDIAL CONGRESS AND EVENTS**

This was very ably coordinated by Professor Korkad Demirel from the Mediterranean Conference Centre. The Congress was chaired by Professor Korla Demirel from the Department of Periodontology at Istanbul University and had many high profile speakers such as Professor Lang, Professor Salvi, Drs Zitzmann, Arora, Zucchelli, Giovannoli and others.

The Congress dealt with periimplantitis and discussed designing optimal suprastructures; antimicrobial and laser therapy; how to increase the zone of keratinised tissue at implants; how to increase the soft tissue thickness at implants; handling of soft tissue recession at aesthetic zone. The Congress also dealt with dehiscence defects, regenerative surgery; surface modifications of implants; regenerative surgical treatment using membranes and different bone augmentation procedures. Hard tissue defects were discussed as well as shortcomings of some bone augmentation procedures.

**26 - 28 APRIL - GERODONTOLOGY ANNUAL CONGRESS**

‘Overcoming Barriers in Oral Health in Later Life’ – University of Malta Valletta Campus. Professor Nikolai Attard, Dr Alexander Schernb, Dr Mario Formosa and The Faculty of Dental Surgery and the Department of Gerodontology Faculty of Well Being of The University of Malta are involved in the organisation.

The new Dental Association committee has been re-elected and the positions are as follows:

President: Dr David Vella
Vice President Geit Relations Officer: Dr Adam Bartolo

*When used as directed; †In vitro single species biofilm after 5 minutes soak

References

Corega is a registered trade mark of the GSK group of companies.
OptraGate®
The latex-free lip and cheek retractor

The gentle solution for a better view

- Efficient treatment and easier relative isolation
- Enlarged operating field and easy access to cavity
- Increased comfort for patients
- Attractive colours for enhanced patient compliance among children

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THE DENTAL ASSOCIATION OF MALTA

Administrative Report
2017 AGM

By Dr David Muscat, President – DAM

The last two years have seen an abundance of both educational and cultural events with a very organised CPD structure in place thanks to the diligence and hard work of all the members of the committee but especially by our CPD officer Dr Ann Meli Attard and CPD Project manager Dr Gabrielle Cordina.

Drs Noel Manche and Nik Dougall, also on the CPD sub committee were also heavily involved in all CPD events especially the KA2 Rome event which was their undertaking form start to finish.

We have organised 12 lectures: three full day hands on courses; three medical emergency courses in dentists practices; a ten day postgraduate course in Rome with no cost at all to the participants; two sailing events; two clay pigeon shooting events; two St Apollonia events; Lenten talks as well as other cultural events. By organising such a plethora of lectures and courses one does not have to travel abroad and incur high costs. We bring excellent lecturers to Malta.

LIST
18/02/15 St Apollonia ably organised by Dr Lino Said
18/02/15 Menarini event
26/02/15 Endo lecture by Dr Dan Keir
03/03/15, 10/03/15, 27/03/15 Long meetings with Minister Fern and with our CPD coordinators Prof Victor Cech lecture
29/04/15 Producing long term stable outcomes in Orthodontics – Dr Stefan Abela
11/05/15 Prof Brian Miller Wear course
03/06/16 Prof Thomas Attard lecture
17/06/15 Clay pigeon shooting event
29/07/16 DAM sailing event
02/09/15 Endo lecture VJ Salomone
04/02/15 DAM Christmas party
Jan 2016 10 day Rome conference and course KA1 ably organised by Drs Noel Manche and Nik Dougall and coordinated by Drs Gabrielle Cordina and Ann Meli Attard.

27/01/16 DAM AGM
07/02/16 St Apollonia – organised by Dr Lino Said
30/03/16 Law and Ethics Part 1
ID R Cassar Demajo
03/04/16 Balliet in the Heart
Dr Alex Manche
27/04/16 EGM
06/05/16 Local Anaesthetic lecture
Dr Vipul Kataria
07/05/16 Full day endo course Drs Kataria and Choudrey
15/06/16 Law and Ethics part 2
03/08/16 Infection control lecture Prof Borg
26/10/16 EGM
07/12/16 DAM Christmas Party
16/12/16, 20/12/16 Medical emergencies courses ably run by Dr Adam Barolo and Dr Meli Attard.
14/01/17 Dr David Andrew course on 3 d imaging ably organised by Dr David Vella and the rest of the committee.

The DAM committee has met in excess of once a month for committee meetings. We have dealt with issues such as the new dental clinic standards as well as the issue of foreign dental schools opening in Malta.

The DAM is a formidable team. In David Vella we have the best secretary one can ask for. Dr Audrey Camilleri is well seasoned in CED and FDI affairs and attends meetings abroad on our behalf. This year we will see the first ever CED conference in Malta in April. The DAM is part sponsoring this. Our Dental Journal is published quarterly and enables those who cannot attend dental events to still obtain the information and slides of most lectures and courses that take place.

I personally try to attend all. Dr Nik Dougall has done a great job as IT officer. Dr Noel Manche has been exemplary as treasurer. Dr Chris Satariano has always been the voice of reason and together with Dr. Audrey Camilleri represent us at the Federation of Professional Associations. Dr Adam Bartolo has ably organised the hands on Medical Emergency courses and is our Govt. Affairs co-ordinator He also helped a great deal with the CPD events.

The DAM is currently working on our next project KA2 where we hope to set up a CPD portal. A great deal of work is being done voluntarily behind the scenes for the benefit of all. We are trying to procure EU funds and one can imagine all the meetings and paperwork that this entails. We spend a lot of not only our surgery time but also our precious free time away from our families to be able to achieve what we do.

It is probably one of the most thankless jobs around- and one is not paid of course. However we love what we do as otherwise we would not do it. Dr Lino Said has left our ranks but still very kindly helps us with our spiritual and cultural events. One must not forget the great contribution Dr Lino Said has given to the Association in the past. Not so long ago Lino and I were organising an event every fortnight .. Now the work is delegated more evenly.

I salute the committee whom I have had the pleasure of working with over the past two years. It has not been easy but together we have overcome all obstacles and look towards 2017 with strength, determination, courage, and camaraderie. There has never been such a united and harmonious group.

I would like to pen my adage –

The DAM leads. Thank you.
The Ultimate Innovation In Gingival Care

Chlorhexidine DG 0.12%

Alpantha® (Allantoin Panthenol complex)

INDICATIONS
- Gingivitis
- Pre and post-surgery
- Scaling and root planning
- Curettage

KinGingival Mouthwash 250ml
2-3 times daily for 10-15 days

KinGingival Toothpaste

2-3 times daily for 10-15 days

The Dental Association Committee – an eclectic mix

Dr. David Vella newly elected President of the Dental Association of Malta, Professor Korkut Demirel from University of Istanbul, EFP Congress Chairman and Dr. Kenneth Spiteri Chairman of MCC at the EFP Conference held in Madeira 3 and 4 March 2017.

Dr. Noel Manche Treasurer of the DAM presenting a cheque to Mrs. Claire Galea, fundraising manager for Inspire in the presence of DAM President Dr. David Muscat. The funds were collected at the Annual Christmas Party raffle on 7/12/2016 at the Quarterdeck Bar at the Hilton. The sponsors who kindly donated prizes for the raffle were Cherubino, Bart Enterprises, Page Technology, Collis Williams, GlaxoSmithKline, Alfred Gera and sons and the Hilton.

The newly elected Dam committee 2017 from left to right: Dr. Chris Satariano (Federation Officer), Dr. Audrey Camilleri (ERO, Federation Officer), Dr. Adam Bartolo (Vice President, Govt Relations officer), Dr. Nicholas Busuttil Dougall (IT Officer), Dr. Noel Manche (Treasure), Dr. David Muscat (Secretary, Editor Probe, PRO), Dr. Kevi Kellett (ERO Officer), Dr. David Vella (President), Dr. Gabrielle Cordina (Projects Manager)

Dr. David Muscat, editor of the Dental Probe presents an issue to Dr. Aidil Khalid at the Bart Enterprises Cerec Hybhix course at the Morita Hotel St Julians on 18th February 2017.

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Dr. David Muscat President DAM presents the Dental Probe Journal to Dr. David Andina, consultant radiologist of the Hilton ID Radiology Course on 16/11/17. This was sponsored by Bart Enterprises, Cerec Hybhix and the DAM.

On the 28th December 2016 Drs. David Muscat and Adam Bartolo, President and Vice President of the Dental Association of Malta presented an inscribed silver plate to Dr. Chevalier Herbert Messina Ferrante as a memento in recognition of his work and dedication towards the Dental Profession.

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Sensodyne Repair & Protect

The benefits of NovaMin® technology and sodium fluoride in a single formulation

With twice-daily brushing, it can:
- Create an even harder reparative† hydroxyapatite-like layer over the exposed dentine*1-7
- Continually protect your patients from dentine hypersensitivity** – Sensitivity relief can start from week 1†, and is still making
- Recommendation Sensodyne Repair & Protect to help your patients live life more free from the impacts of dentine hypersensitivity**

†Forms a protective layer over the sensitive area of the teeth. Brush twice a day for lasting sensitivity protection.* vs. Previously marketed formulation. **With twice-daily brushing.

References:
2. La Torre G and Greenspan DC. J Clin Dent 2010; 21(3): 72-76.
5. GSK Data on File, ML498.
6. GSK Data on File, ML584.
7. GSK Data on File, ML589.
8. GSK Data on File, RH01422.

SaLIENt POINtS FROM THE EFP PERIO MASTER CLINIC MALTA FOCUSING ON PERI IMPLANTITIS MCC MARCH 3-4 2017 Summarised by Dr David Muscat

1. The priority is attachment which is critical to give resistance to mechanical load. It is the thickness and keratinisation. This can be done with autogenous grafts. Keratinised mucosa helps patient maintain oral hygiene.
2. If a patient has periodontitis one must have a stable soft tissue cuff around implants. Soft tissue grafting can improve this. Every treatment should be tailored carefully to the individuals need.
   For a study to be conducted on e needs three years. Recommendations have to be given but there are other factors involved such as economy and willingness of the patient.
   A soft tissue graft will allow for more stable tissue around the implant.
3. Should one use ultrasonic on implants surfaces? – There is no evidence if steel has a real impact on the surface. Not clarified. Titanium curettes are optimal.
   Are ultrasonics used during surgical procedure? – Yes.
4. The indications for a surgical procedure over a regenerative procedure:
   With a two walled defect – stabilise the membrane. Maintenance is of paramount importance after regenerative procedures. When it is hopeless with little bone, age, health, finances-pocket reduction or elimination. One may opt for open flap debridement, soft tissue grafting, bone augmentation etc..
   Periimplantitis therapy is not as predictable as periodontal therapy. The therapy is also surface dependant. The success rates are 35% for non surgical and 50% for surgical. Medium roughness allows better possible attachment.
5. Systemic antibiotics these have added value when dealing with man made bone in regenerative and resective therapy. So with biomaterials one can use antibiotics. Otherwise the use of antibiotics should be restricted. Flap debridement can be carried out without antibiotics. There was no difference between groups that used antibiotics and those which did not in this case.
   However there is a lack of data whether in regenerative therapy with or without antibiotics there is a difference in results as there are no randomised clinical trials.
   The healing phenotype will go in a different direction if there is contamination interfering with wound healing. Chlorhexidine must be used for at least 4 weeks after the regeneration procedure.
7. Excess cement cause periodontitis especially sub mucosally.

LUMINEERS AND SNAP ON SMILE DENMAT EVENT BY PAGE TECHNOLOGY LECTURE BY DR MICHAEL SCHNEIDER Summarised by Dr David Muscat

LUMINEERS are ceramic feldspathic pressable porcelain veneers which are extremely thin, highly translucent and replicate enameled natural characteristics.
Little or no tooth reduction is necessary. Impressions taken in a silicone material are sent to the lab and the veneers are made in a lab overseas. The veneers are said to remain resilient for 20 years. There is no need for temporaries due to hardly any tooth reduction. They show a low wear arte and are available in several shades.

The SNAP ON SMILE is a tooth borne retention prosthesis made with a milled acetal resin that is durable and stain resistant.
It is used for provisional restorations, short and long term esthetic improvement or for diagnostic set ups.
1. Amalgam Issue

Summary of main elements of the triilogue agreement on the Mercury file which as voted in December 2016:

- Ban of dental amalgams for populations at risk (children, pregnant and breastfeeding women) in 01/07/2018, except for medical needs according to the existing professional regulation
- Practitioners are responsible to provide dental practitioners and their patients with information on the health risks associated with their use in the population subgroup.
- Each cycle of use, the first use to be only done by dental practitioners or under their direct supervision if an equivalent level of safety is ensured. Afterwards to be provided to the parent/guardian to complete the cycle for their child under 18 years of age.

2. CED Resolution on Annex V.3/5.3.1 of Directive 2005/36/EC (PQD)

CED members adopted the Revised Resolution on Annex V.3/5.3.1 of Directive 2005/36/EC (PQD) related to the profession of dentist. The CED proposes three types of changes to Annex V.3/5.3.1: changes of the names of the subjects, exclusion of some subjects from the study programme for dental practitioners and addition of other subjects. The CED states that it is extremely important to update the study programme for dental practitioners both in terminology and in content, and to provide dental practitioners with concrete competences and skills in order to permit them practising their profession in the contemporary world successfully.

3. CED Request to the European Commission

The CED, CPME and PGEU are concerned by the lack of specificity and proportionality test for the adoption of some subjects from the study programme for dental practitioners in the forthcoming regulation with great concern. The three organisations are also concerned by the lack of specificity in addressing the overall issue of health professional regulation. The CED states that it is extremely important to update the study programme for dental practitioners and addition of other subjects.

4. TOOTH WHITENING

In 2007, the Scientific Committee on Consumer Products (currently replaced by the SCCS) issued an opinion on hydrogen peroxide, in its free form or when released, in oral hygiene products and tooth whitening products. The opinion considered health risks associated with their use in the population subgroup.

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6. EUROPEAN DENTISTS, DOCTORS AND PHARMACISTS CONCLUDE: PROPOSED PROPORTIONALITY TESTS FOR PROFESSIONAL REGULATION IGNORE PUBLIC INTEREST AND THREATEN QUALITY AND SAFETY OF PATIENT CARE

The Council of European Dentists (CED), the Standing Committee of European Doctors (CPME) and the Pharmaceutical Group of European Union (PGEU) have met the publication of the proposal for a Directive on a proportionality test for the adoption of a new or for amendments to the existing professional regulation with great concern. Therefore, the three organisations call upon the EU institutions to exclude said professions from the scope of the harmonised EU proportionality test.

7. CED REQUEST TO THE EUROPEAN COMMISSION

The CED would like the European Commission to request a review of the 2007 SCCP scientific opinion in order to withdraw the current prohibition of EU legislation on the use of tooth whitening products on under 18 years of age. It is also requested that the following changes are made to the current Regulation on Cosmetic Products concerning tooth whitening products:

- In entry 12, column i) “Wording of conditions of use and warnings” of Annex III of the Regulation, replace the statement “Not to be used on a person under 18 years of age” with the following sentences:
  “The use in a person under 18 years of age to be restricted to therapeutic treatment of a discoloured tooth or of discoloured permanent teeth. For each cycle of use, the first use to be only done by dental practitioners or under their direct supervision if an equivalent level of safety is ensured. Afterwards to be provided to the parent/guardian to complete the cycle for their child under 18 years of age.”

Thank you for showing me your support in re election for the next 2 years. Please feel free to contact me on iro@dam.com.mt should you need any further information.
Interdental Brushes

TePe’s wide selection of interdental brushes offers an option for every need. The brushes are available with a short or long handle, straight or angled brush head and different filament textures. Of course, they also come in a variety of sizes to fit every interdental space. Which TePe do you choose? Explore the complete range at www.tepe.com

We care for healthy smiles

THE HYFLEX ENDODONTIC COURSE
BY BART ENTERPRISES-COLTENE

By MU Dr AdEl-Lababidi PhD. Summarised by Dr David Muscat

Hyflex files have a high fracture resistance with a built in shape memory. They prevent stress during preparation by changing their spiral shape and regain their shape after heat treatment.

Files follow the anatomy of the canal. This is crucial in curved canals.

IRRIGATION
Studies have shown that instrument techniques leave 35% of canals unchanged. A washing effect is needed to remove debris. A lubricant is necessary to reduce risk of fatigue/fracture of instrument.

The irrigant should dissolve collagen, pulp tissue and biofilm. The irrigant should dissolve infected tissue and penetrate the canals to the periphery.

The irrigant should destroy bacteria and yeasts- also in biofilm but should not weaken tooth structure and should not have cytotoxic effects.

The best irrigant solution is sodium hypochlorite 3 or 6 per cent but mainly 3%. When using over 3 % rubber dam must be used.

The NaOCl has antimicrobial properties and dissolves organic tissue. It however does not work well in retreatment where chlorhexidine has to be used.

A preheated soln of 55 degrees can be used and this doubles its efficiency or else one may use ultrasonic irrigation.

Hydrogen Peroxide presents a risk of emphysema, which is higher in the upper jaw. It also has lower antimicrobial properties.

EDTA and Citric acid allow better passage of instruments through their lubricant effects.

The smear layer blocks the dentinal tubes so after NaOCl one should use 17% EDTA-this opens up the dentinal tubes-the next step is to use NaOCl again to disinfect these open tubes, as otherwise you would just disintegrate the smear layer but not the tubes.

Citrac acid removes the smear layer but in higher concentrations can destroy part of the root canal wall.

Chlorhexidine CHx 2% has good antimicrobial properties; it is biocompatible and does not dissolve tissue. It acts against E.Faecalis and fungi which are both resistant against NaOCl and Calcium hydroxide.

Chlorhexidine can work up to 60 days.

Chlorhexidine is good for re-treatments. However CAUTION do not use immediately after sodium hypochlorite as you will get a brown muddy precipitate of parachloroaniline which is potentially carcinogenic.

Alcohol is used for dental drying; isopropyl alcohol 70% at very end.

SOlutions are:

1. sodium hypochlorite allow soln to work for 2 mins

2. EDTA 17% conc and irrigate for 2 mins 10mls per canal

3. then again sodium hypochlorite 3% with 10 mls per canal-leave to work for 3 mins as you push 10mls slowly over 2 mins.

4. File in and clear canal and repeat procedure.

5. When you have widened to0 the diameter you want take 10mls distilled water/saline and irrigate root canal system again 10mls per canal over 2 minutes. This is to totally neutralise the previous solution.

6. Then 10 mls of chlorhexidine 2% with 10 mls per canal over 10mins.

7. Then 10mls of 70% isopropyl alcohol and irrigate for 10 minutes. Then use paper points. If you remove 3 points and they are dry stop this is the law of three points.

COMPLICATIONS OF ROOT CANAL IRRIGATION
Sodium Hypochlorite–burns. Contact with oral mucosa may cause itching.

Accidental injection into periapical tissue will cause immediate pain and swelling.

Care when you get blood coming from the root canal. The bleeding is due to inflammatory tissue. Bleeding is a sign of perforation.

Use a gp point inserted in hydrogen peroxide in the canal and take an x ray if in the canal place calcium hydroxide and leave for 2 days and cover.

COLOUR CODING
Colour Coding is helpful. Red for hypochlorite; yellow EDTA; Blue chlorhexidine and white alcohol/saline.

Continues on page 16.
XP-endo® Shaper

Two technologies combined

The XP-endo Shaper is the latest addition to the XP-endo® range. It is a truly innovative broad spectrum shaping instrument which can be used to radically simplify endodontic sequences.

It results from the combination of two cutting-edge technologies:

- Made with MaxWire® alloy, like the XP-endo Finisher, it offers remarkable flexibility and fatigue resistance, and the ability to progress within the canals with ease and agility, expanding or contracting according to the canal morphology.

- Thanks to the Booster Tip (BT), the XP-endo Shaper benefits from a unique geometry, having six cutting edges at the tip. The BT tip respects the trajectory of the canal, whilst removing more material with each pass. It enables the instrument to start shaping an ISO diameter smaller than the one of the instrument.

In the case of the XP-endo Shaper, the BT enables it to start shaping after a glide path of at least ISO 15, and to gradually increase its working field to achieve an ISO 30.

INTRODUCTION

Lasers in the dental practice are hardly new, FDA approval for laser use in soft tissue was granted in 1992 and hard tissue use on teeth and bone followed in 1996.

The variety of dental lasers on the market can be bewildering but they are basically classified by wavelength with correspondingly different applications.

Diode lasers wavelengths in the 810–1,100 nm range are poorly absorbed by the soft tissue,\(^{[11]}\) such as the gingiva, and cannot be used for soft tissue cutting or ablation.\(^{[12]}\) Instead, the distal end of diode’s glass fiber is charred (by burned ink or by burned corkwood, etc.) and the char is heated by the 810–1,100 nm laser beam, which in turn heats up the glass fiber’ tip.\(^{[12]}\) The soft tissue is cut, on contact, by the hot charred glass tip and not by the laser beam.\(^{[12]}\)

Similarly ND:YAG lasers are used for soft tissue surgeries in the oral cavity, such as gingivectomy, periodontal sulcular debridement, LANAP, frenectomy, biopsy, and coagulation of graft donor sites. The Nd:YAG laser wavelength is partially absorbed by pigment in the tissue such as hemoglobin and melanin.\(^{[13]}\) These lasers are often used for debridement and disinfection of periodontal pockets. Their coagulative ability to form fibrin allows them to seal treated pockets.

The CO2 laser remains the best surgical laser for the soft tissue where both cutting and hemostasis is achieved photo-thermally (radially).\(^{[14]}\)

Erbium lasers are both hard and soft tissue capable.\(^{[15]}\) They can be used for a host of dental procedures, and allow for more procedures to be done without local anesthesia.

Erbium lasers can be used for hard tissue procedures like bone cutting and create minimal thermal and mechanical trauma to adjacent tissues. These procedures show an excellent healing response [citation needed]. Soft tissue applications with erbium lasers feature less hemostasis and coagulation abilities relative to the CO2 lasers. The new CO2 laser operating at ≥9,300 nm features strong absorption in both soft and hard tissue and is the newest alternative to erbium lasers.\(^{[16]}\)

COST OF LASERS

Use of the dental laser remains limited, with cost and effectiveness being the primary barriers. The cost of a dental laser ranges from €1,000 to €30,000, where a dental drill costs between €200 and €800. The lasers are also incapable of performing some routine dental operations.\(^{[17]}\)

ADVANTAGES OF LASERS

Dental lasers are not without their benefits, though, as the use of a laser can decrease morbidity after surgery, and reduces the need for anesthetics. Because of the cauterization of tissue there will be little bleeding following soft tissue procedures, and some of the risks of alternative electrosurgery procedures are avoided. They are also ideally suited for implant recovery, as they be safely used in proximity to titanium.

REFERENCES


2. CO2 Laser: Evidence-based applications in dentistry

3. ab Wright, V. Cook, J. Fisher, John C. (1993-01-01). “Qualitative and quantitative tissue effects of light from important surgical lasers”.


Continues from page 12.

WORKING LENGTH
The Working Length is the distance between a coronal point (cusp tips) and an apical reference (constriction) point which has to be reproducible.

The apex locator is useful. Electrometry allows a direct localisation of the apical constriction that is easy and fast. One must not have too much liquid in the cavity. Lateral canals, gingival overgrowth, contact with metallic restorations can cause false results.

Histacryl is a tissue glue one can use when using rubber dam to stick to the mucosa.

SUCCESSFUL ROOT FILLINGS
At least 20 year span with a 3D hermetic seal that is leak proof.

ROOT FILLING PROPERTIES (ADA)
Easily dispensed; homogenous; good flow; insoluble; dimensionally stable; allows re treatment; allows post prep; see on x ray and biocompatible.

GUTAFLOW
A cold fluid gutta percha-there is no free sealer. It is fast mixing and allows a 10-15 minute working time with a setting time of 25-30 minutes so is not suitable for post/core on same visit.

GuttaFlow2 Gp With A Sealer. eg use in oval canals

GUTAFLOW BIOSEAL
Based on bioglass; a 3 in 1 gp bioseal. This is also used for bone defects-it has a high ph which affects microorganisms as well as silica/calcium oxide. This has only got a working time of 5 minutes. It can also be used to treat cracks and small perforations.

THE HYFLEX ENDODONTIC COURSE
BY BART ENTERPRISES-COLTENE

By MU Dr AdEl-Lababidi PhD
Summarised by Dr David Muscat

Histacryl is a tissue glue one can use when using rubber dam to stick to the mucosa.

THE COMPONEER COURSE BY BART ENTERPRISES-COLTENE

Continues from page 12.

WORKING LENGTH
The Working Length is the distance between a coronal point (cusp tips) and an apical reference (constriction) point which has to be reproducible.

The apex locator is useful. Electrometry allows a direct localisation of the apical constriction that is easy and fast. One must not have too much liquid in the cavity. Lateral canals, gingival overgrowth, contact with metallic restorations can cause false results.

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SUCCESSFUL ROOT FILLINGS
At least 20 year span with a 3D hermetic seal that is leak proof.

ROOT FILLING PROPERTIES (ADA)
Easily dispensed; homogenous; good flow; insoluble; dimensionally stable; allows re treatment; allows post prep; see on x ray and biocompatible.

GUTAFLOW
A cold fluid gutta percha-there is no free sealer. It is fast mixing and allows a 10-15 minute working time with a setting time of 25-30 minutes so is not suitable for post/core on same visit.

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Henry Schein ConnectDental, Henry Schein’s platform for digital dentistry, combines a wide choice of digital technology solutions with all the knowledge, service, and support needed to help practitioners navigate the rapidly changing world of digital dentistry.

Helping dentists make patients’ lives better!

Dental Anxiety

By Anne-Marie Agius BchD, MDPH

Dental Anxiety
Its Impact and the Relevance of Behavioural Therapy
Anne-Marie Agius BchD, MDPH

Dental Anxiety
- Fear of dentists
- Fear of needles
- Fear of injections
- Fear of the light
- Fear of pain
- Fear of movement
- Fear of images
- Fear of the unknown
- Fear of the future

Dental Anxiety and Measurement

Dental anxiety is a psychological problem that needs to be addressed at its early stages to prevent it from becoming a problem.

Dental anxiety can be treated with various methods such as: psychological therapy, medication, and other techniques.

Measurement of dental anxiety is usually done using a self-report instrument - such as the Dental Anxiety Scale, the Modified Dental Anxiety Scale, and the Dental Fear Survey.

The vicious cycle of dental phobia

What causes dental anxiety?

For more information about our Henry Schein ConnectDental Trusted Digital Solutions, please visit www.henryschein-dental.de, or contact your Henry Schein Dental Sales Consultant for full product information.

Continues on page 20.
DENTAL ANXIETY
ITS IMPACT AND THE RELEVANCE OF BEHAVIOURAL THERAPY

Continues from page 19.

Impact of dental anxiety on the patient
1. Dental/symptomatic treatment – enhances anxiety
2. Avoidance of treatment – poorer oral health
3. Psychological impact of dental treatment – anxiety, phobia, TMJ dysfunction, jaw pain, swallowing difficulties, depression
4. Pain or oral health has an impact on overall health status, nutrition, OII etc.
5. Psychological – poor quality of life

Impact reported by dentists
1. Stressful
2. Inpatient, anger and frustration at patients’ lack of compliance with treatment and appointment attendance
3. Time consuming
4. Opportunities to pay – no reimbursement for treating anxious patients especially with significant movement
5. Lack of confidence in treating anxious patients – insufficient training
6. Feeling of helplessness / failure

Most dentists do their best to treat these patients altruistically, to be fair to healthcare providers or as an investment in the health of the patient.

Public Health impact
- Dental anxiety and phobia are highly prevalent
- Depression of oral health and quality of life individuals
- Increased economic burden on healthcare funding/ resources
- Increased focus on prevention
- Management of anxiety

Healthcare funding management should consider sparing some money for research, training and opening of dental anxiety clinics.

Maltese perspective
- All maltese below treatment
- Inhalation and IV sedation can be administered in equipped clinics
- General Anaesthesia
- Literature about dental phobia in Malta is limited
- Maltese could fall in country based on cascade analysis

Possible future considerations
- Prevention is better than cure
- Improvements in tools and methods for “pain-free” dentistry
- Introduction of behavioural methods of treating dental anxiety in Malta in particular CBT and addressing the exchange of information of clinicians, patients and decision-makers towards them
- Improve media portrayal of anxiety and dental treatment
- Under and postgraduate awareness and training on the behavioral interventions for dental anxiety

Behavioural Therapy
- CBT: cognitive-behavioral therapy
- ABC: Approachable, Believable, Communicative
- DBC: Direct, Believable, Communicative
- EBC: Ethical, Believable, Communicative
- OBC: Outstanding, Believable, Communicative
- CBT-C: Cognitive-behavioral therapy - cognitive restructuring
- CBT-B: Cognitive-behavioral therapy - behavioral therapy
- CBT-D: Cognitive-behavioral therapy - diazo treatment
- CBT-M: Cognitive-behavioral therapy - maintenance

Cognitive Behaviour Therapy as the gold standard
- CBT is the only form of psychological therapy that is effective for dental anxiety
- CBT is evidence-based and is supported by the ADA and the American Psychiatric Association
- CBT is highly effective for treating dental anxiety
- CBT is recommended by the American Psychological Association for the treatment of dental anxiety

Voids in literature
- Those who are completing different areas of treatment are not studied
- The economic evaluations of behavioral treatments for dental phobia
- More research in studies on the effectiveness of treatment outcomes and coping strategies of the data and conclusions
- Few studies exist on anxiety based on Ethiopia available for use

Pharmacological Therapy
- Oral sedation
- Inhalation sedation
- Nitrous oxide sedation
- Partial oral sedation
- General Anaesthesia

Conclusions
- The literature is limited and there is a need for more research on the effectiveness of behavioral treatments for dental anxiety
- CBT is the gold standard for treating dental anxiety
- CBT is highly effective and is supported by the ADA and the American Psychiatric Association
- CBT is recommended by the American Psychological Association for the treatment of dental anxiety

References
TEETHING PROBLEMS:
KNOW THY PATIENT

Ms Joan Camilleri
Reg. Clinical Psychologist/Psychotherapist
Managing Psychologist MHS / RHKG: Coordinator

The pleasure principle and the meaning of pain

Pain is a complex experience encompassing physical, mental, social and behavioral processes, compromising the quality of life for many individuals. Pain is subjective, experienced by everyone. The meaning of pain through experience may be related to loss of body function.

Loss of function can lead to a variety of negative outcomes related to the body, brain and behavior. Pain is a painful experience, negatively affecting the quality of life.

Physical and social consequences were related to the following:
- Loss of function: emotional or psychological
- Loss of function: physical or social
- Loss of function: cognitive or behavioral
- Loss of function: intellectual or cognitive
- Loss of function: emotional or cognitive

The narcistic type

The need for the narcissistic person to be perceived as superior and important in the eyes of others is the primary concern. They are often characterized by an inflated sense of self-importance, a need for admiration, and a lack of empathy. This type of person often displays manipulation, charm, and charm to gain others’ favor and attention.

Communication issues: The narcissistic person may be narcissistic and manipulative, often being more interested in their own needs and desires than those of others. They may be overly critical and judgmental, failing to see the value in the contributions of others.

The schizoid type

The schizoid type is characterized by a lack of social interaction and a preference for solitude. They may be seen as distant, unemotional, and detached from others. This type of person may have difficulty forming close relationships, often feeling isolated and disconnected from others.

Communication issues: The schizoid person may be aloof and uninvolved in social interactions. They may be difficult to approach, and their responses to others may be limited or non-existent. They are often characterized by a lack of emotion and a preference for solitude.

The obsessional type

The obsessional type is characterized by a preoccupation with order, perfection, and control. They may be seen as highly organized and detail-oriented, but they may also be overly rigid and inflexible. This type of person may have difficulty relaxing and may be prone to anxiety.

Communication issues: The obsessional person may be highly sensitive to criticism and may be quick to react negatively. They may also be overly critical of others, failing to see the value in the contributions of others.

The sadistic type

The sadistic type is characterized by a lack of empathy and a desire to cause pain and suffering to others. They may be seen as cruel, manipulative, and entitled, often seeking to control others through fear and intimidation.

Communication issues: The sadistic person may be highly manipulative and may use their power to control others. They may be quick to react negatively to criticism and may be prone to aggression.

The avoidant type

The avoidant type is characterized by a lack of self-confidence and a fear of rejection. They may be seen as distant, unemotional, and detached from others. This type of person may have difficulty forming close relationships, often feeling isolated and disconnected from others.

Communication issues: The avoidant person may be aloof and uninvolved in social interactions. They may be difficult to approach, and their responses to others may be limited or non-existent. They are often characterized by a lack of emotion and a preference for solitude.

The dependent type

The dependent type is characterized by a lack of self-confidence and a need for others to meet their needs. They may be seen as timid, passive, and dependent, often seeking to avoid conflict and seeking reassurance from others.

Communication issues: The dependent person may be highly sensitive to criticism and may be quick to react negatively. They may also be overly critical of others, failing to see the value in the contributions of others.

The histrionic type

The histrionic type is characterized by a lack of self-confidence and a desire to be the center of attention. They may be seen as dramatic, over-the-top, and attention-seeking, often seeking to gain others’ approval and admiration.

Communication issues: The histrionic person may be highly manipulative and may use their power to control others. They may be quick to react negatively to criticism and may be prone to aggression.

The borderline type

The borderline type is characterized by a lack of self-confidence and a need for others to meet their needs. They may be seen as timid, passive, and dependent, often seeking to avoid conflict and seeking reassurance from others.

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USE AN INNOVATIVE, PREFABRICATED COMPOSITE VENEER

USING COMPONEE R TO MIRROR ARTISTIC FREEHAND COMPOSITE PLACEMENT

By Frank Milnar, DDS, AAA CD. Information provided by COLTENE

dentistry’s renewed emphasis on minimally invasive treatments affords patients the opportunity to receive highly esthetic and natural-looking restorations that preserve as much of their natural tooth structure as possible.1 Yet, the artistic and clinical skills required to plan, create and deliver such treatments can challenge dentists in terms of material/restoration selection, preparation design, chair time, appointment requirements and realization of natural-looking effects and characteristics.

Although the ongoing evolution of direct and indirect restorative materials and techniques has returned dentistry to a conservative focus, a more straightforward approach to achieving ideal esthetics, form and long-term function has been needed. Materials available for conservative and esthetic treatments have included indirect composite veneers, direct composites and indirect porcelain or ceramic veneers.2-5 The prefabricated composite veneers developed in the 1930s introduced dentistry to the veneer restoration concept. Quickly abandoned due to technological limitations, veneering resurfaced in the 1970s with the availability of chemically cured first-generation direct composites, which also demonstrated significant shortcomings (e.g., difficult handling, high wear, low fracture resistance and limited shades).4,5 However, minimal preparations that left insufficient room to accommodate esthetic porcelain resulted in overcontoured restorations and periodontal complications.7,8 Further, these materials demonstrated less-than-desirable strength. As a result, more aggressive tooth preparations (e.g., up to 1.5 mm) were undertaken to avoid overcontouring, as well as satisfy fabrication and cutback/layering requirements for more esthetic and durable pressed veneers (e.g., leucite-reinforced glass ceramic).9,10 Although today’s metal-free materials enable a return to more conservative indirect veneer preparation designs, direct composite placement, whether guided or freehand, is still considered the most minimally invasive and least aggressive approach for restoring function, form and esthetics.11-13 However, despite dramatic advances in direct composite material handling characteristics and optical and physical properties, placement presents technician-sensitive challenges ranging from sculpting and contouring to line angle creation.14-16

Continued on page 29.
PROFESSIONAL INDEMNITY COVER IS NOT ENOUGH!

In today’s world a Professional Indemnity Policy for professionals is a must, however in the overall business risk spectrum is this enough?

In the real world as we all know, things do happen and one of the worst scenarios one can face in life is when your own health or life or that of your loved ones is threatened by serious illness or even death.

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Continues from page 25.

Additionally, the process can be time-consuming and less than predictable. Therefore, an ideal veneer restoration would demonstrate a balanced combination of the minimal preparation requirements and ability to achieve enhanced esthetics of direct composites, along with the convenience and predictability of indirect restorations.

Fortunately, prefabricated direct composite veneers can minimize the difficulties associated with guided and freehand composite placement. Already prepared to demonstrate an anatomical design and proper line angles/contours, they are ideal for clinicians without freehand composite design expertise and actually enable them to enhance their morphology, preparation, adhesion and smile-design skills.

Indicated for lengthening teeth, correcting crooked teeth, masking discolorations, closing diastemas and restoring lesions and tooth fractures,14 prefabricated composite veneers require minimal tooth preparation and can be modified for esthetic characterization. However, clinicians must carefully determine the ideal shade and size to ensure a successfully intimate fit and harmonious integration with surrounding teeth.

**COMPONEER™**

Introduced as an alternative to traditional direct and indirect restorations, COMPONEER™ (Coltène/Whaledent AG, Altstätten, Switzerland) is a direct composite veneering system comprised of prefabricated, preshaped and propolymerized highly-filled nano-hybrid composite veneers.

With a variety of sizes (i.e., 30 different shapes; 6 shapes per size), tooth enamel shades and thin dimensions (i.e. from 0.3 mm), the system combines the advantages of direct composite restorations with those of laboratory-fabricated veneers.
simplicity with which the COMPONEEr prefabricated veneer system. 15 bond strengths than those of another COMPONEEr demonstrated greater vitro study recently determined strength and functionality. An in inner surface increases wettability created. The novel microretentive material (i.e. Synergy D6), a completely cemented using the same composite Because COMPONEEr restorations are contouring, finishing and polishing). for enamel layering and 70 minutes for dentin buildup, 50 minutes preparation and conditioning, 60 preparation and conditioning, 60 minutes for multiple appointments associated chair time by eliminating the need only one visit for completion, improves convenience and saves chair time by eliminating the need for multiple appointments associated with typical indirect veneers. The entire treatment averages a total of 210 minutes (i.e. 30 minutes for preparation and conditioning. These 60 minutes for dentin buildup, 50 minutes for enamel layering and 70 minutes for contouring, finishing and polishing).

Because COMPONEER restorations are cemented using the same composite material (i.e. Synergy D6), a completely solid and uniform restoration is created. The novel microretentive inner surface increases wettability and ensures a durable bond while the composite material demonstrates strength and functionality. An in vitro study recently determined COMPONEER demonstrated greater bond strengths than those of another prefabricated veneer system. 16

The following case demonstrates the simplicity with which the COMPONEER system can be used. It also illustrates the extent to which the prefabricated veneers blend harmoniously with natural teeth and those restored with freehand direct composite restorations.

**CASE PRESENTATION**

A 35-year-old male presented with a chief complaint about the overall esthetics of his smile (Figs. 1 and 2).

**STEP 01** Although he requested treatment, he insisted upon minimal tooth preparation. A comprehensive examination was performed, and pre-operative photographs were taken. The patient exhibited negative space at tooth Nos. 7 and 10, acute canting of the mesial aspects of tooth Nos. 6 and 11 (Fig. 3) and an ideal occlusion and end-to-end bite (Fig. 4).

**STEP 02** To conserve the greatest amount of healthy tooth structure possible, the treatment plan included a combination of directly placed freehand composite veneers on tooth Nos. 6, 7 and 11 and a prefabricated direct composite veneer on tooth No. 10. Tooth No. 10 required no preparation and was ideal for a prefabricated veneer, although the overcontoured tooth No. 7 required some preparation (Fig. 5). The patient accepted this treatment plan.

**STEP 03** The patient’s teeth were cleaned with a brush and toothpaste, and abrasive strips were used to roughen and clean interproximally. The COMPONEER Contour Guide was used to determine the appropriate shape and size for the prefabricated composite veneer. After the applicable shapes were placed over tooth No. 10, the blue transparent shade was used to enable optimum contrast on the tooth (Fig. 6). A study model was also utilized to ensure the proper size veneer (e.g. large) was selected for optimal fit and integration (Fig. 7).

**STEP 04** Shades were selected using daylight lamps and the COMPONEER Synergy D6 shade guides. The enamel shells were compared first, then the dentin core shades. The dentin substrate was then placed under the shell of the enamel core to determine appropriate shading. Enamel Universal and Dentin White Bleach were selected to match the natural tooth structure and blend with the surrounding dentition (Fig. 8). However, rather than using a single shade of Synergy D6 composite, the author used two (e.g., Dentin White Bleach [WB] and White Opalescent [WO]) to mirror the chroma in the cervical third of the adjacent teeth (Fig. 9). These shades were placed on the tooth and blended. The prefabricated veneer was seated to preview the restoration and ensure ideal shading after which it was removed along with the composite. The teeth were then cleaned, rinsed and dried.

**STEP 05** Because tooth No. 10 required no reduction, only aprismatic enamel was removed to enhance bonding. Rotary abrasion was used on all labial aspects of tooth No. 10 (Fig. 10). Mylar strips and wedges (Carrion Dental Solutions) were then placed to isolate the gingival aspect and prevent the teeth from sticking together.

**STEP 06** Exarch gel was applied to condition the preparation then spread evenly with a brush to the cervical limit. The gel set for 30 to 60 seconds (Fig. 11) and was then rinsed with water for 20 seconds. No trace was visible on the enamel, and an air blower removed any excess water to create a frosty-white appearance and dry caries (Fig. 12). One Coat Bond adhesive was dispensed onto a brush and evenly applied to the tooth No. 10 by “painting” onto the tooth from the cervical to incisal areas (Fig. 13). The adhesive was blow-dried gently with oil-free air in the same direction then light cured for 30 seconds.

**STEP 07** The adhesive was then applied directly onto the internal aspect of the prefabricated veneer (Fig. 14), which was held using the COMPONEER Holder. The veneer was then briefly blow-dried with oil-free air but not light-cured.

**STEP 08** Shade WB of the Synergy D6 composite was placed on the cervical half of the tooth (Fig. 15), after which Shade WO was applied to the incisal half. The composites were blended seamlessly together to reproduce the natural chroma observed in the cervical third of the adjacent teeth (Fig. 16). This artistic technique enabled the author to develop a chromatic interpretation of the surrounding teeth similar to the esthetics produced by freehand direct composite placement.

Continues from page 25.

Continues on page 38.
PART 1: THE HARDWARE AND PHOTOGRAPHY

CLINICAL RELEVANCE

The first part of this short article aims to outline the hardware typically recommended for intra and extra oral digital dental photography. The value of intra oral photography, and the basic techniques involved will be discussed in greater detail in the second part of the text.

A HISTORICAL NOTE

The first practical and commercially viable process of photography, the daguerreotype process, was invented at around 1835 and was commercially introduced in 1839, by Louis Jacques Daguerre. (Casha, 2016) Coinciding with the first publication of the American Journal of Dental Science, the first dental journal ever printed.

At around the same time, on the 8th of May 1840, Alexander Wolcott, a dentist and inventor was the first person to patent a camera, the Daguerreotype mirror camera and opened the first ever portrait studio, the Daguerrean Parlor in New York. (Galante, 2009)

The first dental school was opened, officially began at around 1840, when the first dental school was opened, and the world’s first photographic gallery was inaugurated and operated by a dentist turned photographer.

In 1848, Drs. R. Thompson and W.E. Ide removed a tumor from a maxilla, and repaired the defect with an oral prosthesis made of gutta percha. They photographed the patient before and after the procedure and published them, together with an article on the abovementioned American Journal of Dental Science in 1850.

These are thought to be the first ever set of before and after photographs to be taken of a dental procedure. (R.A. Glenner, 1991)

More recently, but also in New York City, Lester Dine, the founder of Lester A. Dine Inc, was allegedly approached by a dentist who expressed an interest in evenly illuminating the inside of his patients’ mouth, and hence facilitate intra-oral photography.

This led Dine to invent the ring flash in 1952. It was a simple, circular flash that attached to the end of the lens, having the ability to direct light into the patient’s mouth providing full, even illumination. (Glassgold) This was the first official ring flash.

The latter are now commonly manufactured by numerous brands and used mainly for macro photography in general.

THE CAMERA BODY

Most modern dental chairs come equipped with intra oral cameras, which are excellent tools for patient education. They can easily be used intra-operatively and don’t require much training.

However, the image quality and resolution are typically quite poor when compared to that of the average, modern digital camera. It is certainly not good enough for academic publications and they will certainly not give a good first impression if used for marketing purposes at this day and age.

WHY DIGITAL?

Essentially all of us are now using digital cameras, which allow us to instantly view our images and immediately correct any technical imperfections. We can then show these same images to our patients and send them to our laboratories or specialists within minutes. (R. Shorey, 2009)

There are three main categories of digital cameras. The compact pocket cameras, the compact interchangeable lens cameras and the digital single lens reflex (DSLR) camera systems.

Compact cameras offer no possibility of using interchangeable lenses, and the lens they come with is typically not designed for macro, or close up photography.

The aligners are removable, but must be worn for a minimum 20 hours daily. They have been designed to be comfortable to wear and not to cause any adverse gum reactions.

The aligners are checked by the dentist regularly to ensure that the teeth are moving in the correct way, as determined at the planning stage. Treatment time varies according to the difficulty of the case and this may be viewed in 3D on the Nuvola portal. The aligners do not adversely affect speech and are designed to be barely noticeable.

Aligners are not necessarily a replacement for traditional fixed braces that would be required for more difficult and complex cases. For professional advice regarding Nuvola Clear Aligners do consult your Dental Surgeon or Orthodontist.
CLINICAL PHOTOGRAPHY
PART 1: THE HARDWARE AND A BRIEF HISTORICAL NOTE

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Most have an built-in flash, which is weak and on the side, rather than in line with the lens. Hence, most of them cannot be used to obtain consistent magnification ratios and optimal intra-oral illumination. If used, they will tend to offer an incredibly distorted image, with the anterior teeth appearing to be wider, and the posterior teeth would be obscured in shadow due to the uneven, weak light. (Sharland, 2008)

Mirrorless interchangeable lens cameras offer more versatility and better image quality over a compact camera, and some dental-specific systems have been developed and improved over the past few years.

However, they are still relatively new and cannot yet match the gold standard DSLR, in terms of both image quality and ergonomics.

DSLRs are currently the most ergonomic and versatile cameras for dental photography and they usually have better, longer lasting, rechargeable batteries. They have three main parts, the camera body, the lens and the flash.

In dental photography, the lens and flash are the most important components that allow us to obtain optimal image quality in the mouth.

An understanding of magnification ratios enables the clinician to consistently frame his or her images, ensuring that the subject is consistently photographed at the same distance.

This is especially important when monitoring lesion size over time. For example, a central incisor with a length of 10mm in the mouth, and 10mm long on the 35mm negative is being reproduced at a magnification ratio of 1:1. It is life size.

Most consumer grade digital cameras have a sensor, which is only about 2/3rds the size of 35mm film. This essentially means that the digital image will be cropped.

Hence we need to zoom out of the frame in order to get the same amount in the same frame, as we would get with a full frame camera, the 35mm film digital equivalent. When these smaller sensor cameras are used, the desired magnification ratio needs to be multiplied by 1.5.

THE LENS

The nature of dental photography necessitates the recording of objects that vary in size from a full face, to a single tooth at its actual size. Simply because a lens has ‘macro’ written somewhere along its barrel does not mean it is capable of fulfilling these requirements. The only true macro lenses, capable of recording an image at a magnification ratio of 1:1 are specific, fixed focal length (prime) macro lenses.

Choosing a lens with the correct focal length is important as this affects perspective, distortion, and the distance between the camera and the subject.

Short focal lengths should be avoided as they tend to enlarge near objects, cause distortion, and do not allow for even intra-oral illumination. (Sharland, 2004)

Longer focal lengths allow more distance between the camera and the subject, which in turn results in less distortion and more even illumination of the mouth. For dental photography, most institutions consider lenses with a focal length of around 100mm as the lenses of choice.

THE RING FLASH

Nowadays, in macro, or close up, photography in general, photographers tend to use; either the ring flash, a dual-point flash, or an off-camera flash, with or without a diffuser. These last two options might offer more versatility and creativity, however, what we need in dental photography is consistent, even illumination of the mouth, rather then freedom of artistic expression, hence many consider the ring flash to be the more sensible option. (Sharland, 2013)

ACCESSORIES

Accessories typically used in dental photography are retractors, mirrors and contrastors

MIRRORS

Occlusal Mirrors: Clean unscratched front surface mirrors are essential to obtain maxillary and mandibular occlusal views. Typically, mirrors with handles are easier to use and position, then those lacking one.

It is essential to warm mirrors prior to using them, usually in warm water, to avoid fogging. If an assistant is available, blowing dry air directly on the mirror surface during use would also help delay fogging up.

They tend to scratch easily and it is better if they are sterilized separately, ideally protected in microfiber pouches.

Side mirrors: Buccal and lingual side mirrors are available. They are typically not required for standard views, however, they can be very useful in cases were it is difficult to view the posterior dentition using retractors alone.

They also eliminate errors with depth of field, as the focal point is the same for the entire mirror. i.e. it is easier to get all the dentition in focus, when using a larger aperture.

RETRACTORS

There are both metal and plastic retractors. Their main use is to hold soft tissue out of the way. Plastic retractors are typically less intimidating, especially for pediatric patients, however they may be more challenging to use with mirrors.

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It is very important to avoid cold sterilization of plastic retractors, as this will render them unsightly and opaque.

There are joined and individual retractors, in various sizes. Adult sized individual retractors offer the greatest versatility and visibility.

CONTRASTORS
Contrastors isolate an area, to give clean, perhaps more professional looking backgrounds to our images. They are especially useful in the aesthetic zone.

They are normally used in conjunction with retractors or mirrors and placed as far back into the mouth as possible. If placed directly behind the front teeth, they may appear to be grey, rather than black.

Avoid cold sterilization. They should be wrapped separately and autoclaved.

CONCLUSION
Clinical photography should be viewed as a convenient adjunct to our clinical records. Digital images are easily transferable and stored and may be readily utilized as a patient communication tool.

The next part of this article will delve briefly into the value of clinical photography, and the basic technique involved in obtaining the more common views.

REFERENCES:


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USE AN INNOVATIVE, PREFABRICATED COMPOSITE VENEER

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STEP 09 Synergy D6 WB composite was then similarly applied to the cervical and Synergy D6 WO to the incisal of the prefabricated veneer (Fig. 17). The two shades were sculpted and blended seamlessly together. A volume estimate was established to avoid complications with over and underfilling. Overfilled restorations create overcontoured teeth and lead to poor occlusion and predictability, while underfilled restorations are susceptible to voids and decreased longevity.

STEP 10 The COMPOSITEER was seated to the tooth using the Placement Tool and carefully moved to the final position with gentle and constant pressure, being mindful of hydraulic forces and axial drifting (Fig. 18). Excess composite extruded from all aspects, as expected, indicating a likely void free restoration (Fig. 19). While the COMPOSITEER was held in position, excess was removed using a bladed instrument (Fig. 20) with the overhead light focused on the patient’s chin to avoid light polymerization. The restoration was then light cured for 60 seconds and the wedges and Mylar matrix removed. Placement was verified with the patient relaxed and facing straight ahead.

STEP 11 The cervical margin was gently defined using a fine diamond and water spray to avoid gingival tissue trauma (Fig. 21). The incisal and proximal margins were then adjusted using Cross Flex Discs (Fig. 22), and a polishing cup was used on the composite surface to ensure no voids were present (Fig. 23). A polishing point was then used to polish the interproximal margins (Fig. 24) after which all margins were hand polished with a polishing brush to achieve a “bonedry” shine for enhanced longevity and predictability (Fig. 25).

STEP 12 Freehand direct composite veneering was performed on tooth Nos. 6, 7, and 11 using Synergy D6 composite in shades A1/B1 and WO. The tooth No. 7 restoration was designed to mirror the COMPOSITEER restoration on tooth No. 10. Tooth Nos. 6 and 11 required no preparation, and composite was placed to correct the acute mesial aspect canting. Once all of the restorations were completed, the patient was very satisfied with the highly esthetic results achieved with minimal tooth preparation (Fig. 26). The freehand direct composite restoration on tooth No. 7 was compared with the prefabricated direct composite veneer on tooth No. 10 (Figs. 27 and 28) for esthetics, and both demonstrated symmetrical line angles, ideal polish and esthetic properties (Fig. 29). Additionally, the mandibular occlusal view confirmed ideal contouring and curvature from tooth Nos. 7 to 11 (Fig. 30).

CONCLUSION

As more clinicians and patients pursue minimally invasive treatments, prefabricated direct composite veneers (e.g., COMPOSITEER) represent a predictable and cost-effective option for achieving a highly esthetic and durable restoration in an efficient manner. Overall, the case presented in this article demonstrates that prefabricated veneers mirror the artistic esthetics of expertly created freehand direct composite restorations. By combining the advantages of direct and indirect restorations, COMPOSITEER prefabricated composite shells reduce restorative chairtime without compromising optical and strength characteristics. Suitable for everyday practice procedures, COMPOSITEER is a conservative restorative solution for clinicians still developing their direct freehand composite placement skills and expertise.

ABOUT THE AUTHOR

A graduate of the University of Minnesota School of Dentistry, Frank J. Milburn, DDS, A/AACD, maintains a full-time practice in St. Paul, Minn., emphasizing the applied art of smile design. An accredited member of the American Academy of Cosmetic Dentistry (AACD) and a Board examiner for accreditation, Dr. Milburn is currently the Professional Education Committee co-chair for the AACD.

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