ISSUE 52 DEC14

The Maltese Dental Journal

The Dental Probe

You make a difference to those who suffer from dentine hypersensitivity

The majority of people who suffer from dentine hypersensitivity experience pain, but simply cope with it[1]

Suffering in Silence

Research conducted by Sensodyne, involving over four thousand people, showed that as many as 67% of people who suffer wouldn't ask about the condition[1]. They don't associate painful twinges with tooth sensitivity and so don't talk about it.

Talking motivates patients

Talking about tooth sensitivity during their regular dental appointment was shown to be the key trigger for patients to start actively managing their dentine hypersensitivity[1] with a specially formulated sensitivity toothpaste such as Sensodyne.

Your Sensodyne recommendation makes a difference

Diagnosing sensitivity, educating sensitivity patients and recommending Sensodyne can make a real difference to the lives of your patients with dentine hypersensitivity.

Twice daily brushing with Sensodyne is clinically proven to provide ongoing protection from the pain of dentine hypersensitivity.[†2–8]

By recommending Sensodyne, you can help your patients to confidently manage their dentine hypersensitivity.

*With twice daily brushing

Dentists recommend Sensodyne®

†Clinical relief after as little as 2 weeks brushing

K19010MI 02/13

References:
1. GlaxoSmithKline. Data on file. Sensodyne – path to purchase research. January 2012. 2. Jeandot J *et al*. Clinc (French) 2007; 28: 379–384. 3. Leight RS *et al*. J Clin Dent 2008; 19: 147–153. 4. Nagata T *et al*. J Clin Periodontol 1994; 21(3): 217–221. 5. Salvato AR *et al*. Am J Dent 1992; 5(6): 303–306. 6. Silverman G. Compend Contin Educ Dent 1985; 6(2):132–136. 7. Silverman G *et al*. Am J Dent 1994; 7(1): 9–12. 8. Troullos ES *et al*. GSK data on file. 1992.

Editorial

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DENTAL ASSOCIATION OF MALTA
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By Dr David Muscat

Dear colleagues,

Since the last issue we have been busy with events. The AGM will be held on Wednesday 4th February at the Federation building in Gzira.

I wish you all a Merry Christmas and a Happy new Year.

I would like to remind you all to pay your subscriptions as early as possible for 2015 using the enclosed slip in the journal.

Cover photo kindly supplied by Dr. Kristian Vella

Best regards,

David

Dr David Muscat B.D.S. (LON)
Editor / President, P.R.O., I.R.O. D.A.M.

RECENT/PLANNED EVENTS

30 OCTOBER
At Vinum – Hearing Loss in Dentists by Dr Amanda Bartolo ENT surgeon, sponsored by Chemimart.

13 NOVEMBER
Endocrine Disease in Relation to Dentistry by Dr Mario Cachia endocrinologist sponsored by ProHealth.

23 NOVEMBER
Mass at Porziuncola Place, Bahar ic-Caghaq followed by lunch

5 DECEMBER
Christmas party at Palazzo Depiro Mdina

JANUARY
History of wine-making lecture planned.

4 FEBRUARY
Annual AGM at MFPB Gziraplease

MARCH
Orthodontic lecture planned – Dr Stefan Abela

We hope to have lectures by Drs Gabby Gatt, Edward Sammut and Stefan Abela, as well as by doctors Alec Lapira, Professors Thomas Attard and Victor Grech.

CLINIC FOR SALE IN ZEJTUN

Central square in Zejtun, owner retiring from work. At least 92sqm of floor space with high potential for development for multiple disciplinary activities. All permits and licences in hand for dental clinic

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Required Dental Surgery Assistant to work on a part time basis in clinics in Birkirkara and Attard. Previous experience will be considered an asset. If interested please call on **79898999** or e-mail **mform50@hotmail.com**

The Truth About Teeth

A visit to the dentist
Is a trip unknown,
And while waiting for your turn to come,
You may just hear a grown.

At first you're lured into the chair
And asked to 'Open wide'
Then after careful scrutiny
The dentist may confide

"I'll give you an injection
You will like it,it's painkilling"
In fact though ,in reality,
It's much worse than the drilling.

In next to no time you will find
Your nose has gone to sleep
Which is just as well having been informed
"This eye tooth goes very deep".

"Quite deep"he says again,with glee
His eyes now getting meaner,
As he hangs upon your botton jaw
A mini vacuum cleaner.

He says"It sucks out all the debris,
And the water and the blood,
Come now,don't be cowardly,
It's really very good".

"Now aim the rinse at the basin please"
He says with anxious glare,
But the last job is finished and
You can climb out of the chair.

"In six months time I'll see you then"
Comes the call as you head for the door.
But chronic deafness now sets in,
And the comment you choose to ignore.

Enough's enough you now decide,
The mem'ry will take time to fade,
And you'll never admit that
the fault is all yours,
And the truth is you're just plain afraid.

BT

This poem was written by a patient of Dr Mario Camilleri's who presented the poem to him before she returned to the UK after having attended at his clinic for several years.

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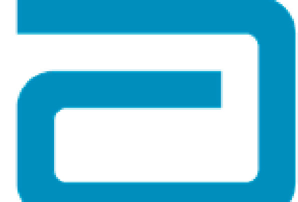

Brufen Tablets 400mg
1200 - 1800mg daily in divided doses, up to a maximum of 2400mg

Brufen Granules 600mg
1200 - 1800mg daily in divided doses, up to a maximum of 2400mg

Brufen Retard 800mg
2 tablets taken as a single dose preferably in the early evening well before retiring to bed

Brufen Syrup: The daily dose of Brufen 20mg/Kg of bodyweight in divided doses
1 - 2 yrs: One 2.5ml spoonful (50mg) three to four times a day
3 - 7 yrs: One 5ml spoonful (100mg) three to four times a day
8 -12 yrs: Two 5ml spoonfuls (200mg) three to four times a day

Brufen Tablets 400mg , Brufen Granules 600mg, Brufen Retard Tablets 800mg, Brufen Syrup 500ml (100mg/5ml) Therapeutic indications: Brufen is indicated for its analgesic and anti-inflammatory effects in the treatment of rheumatoid arthritis (including juvenile rheumatoid arthritis or Still's disease), ankylosing spondylitis, osteoarthritis and other non-rheumatoid (seronegative) arthropathies.In the treatment of non-articular rheumatic conditions, Brufen is indicated in periarticular conditions such as frozen shoulder (capsulitis), bursitis, tendonitis, tenosynovitis and low back pain; Brufen can also be used in soft tissue injuries such as sprains and strains. Brufen is also indicated for its analgesic effect in the relief of mild to moderate pain such as dysmenorrhoea, dental and post-operative pain and for symptomatic relief of headache, including migraine headache.**Posology and method of administration:** Adults: The recommended dosage of Brufen is 1200-1800 mg daily in divided doses. Some patients can be maintained on 600-1200 mg daily. In severe or acute conditions, it can be advantageous to increase the dosage until the acute phase is brought under control, provided that the total daily dose does not exceed 2400 mg in divided doses. Children: The daily dosage of Brufen is 20 mg/kg of body weight in divided doses. In Juvenile Rheumatoid Arthritis, up to 40 mg/kg of body weight daily in divided doses may be taken. Not recommended for children weighing less than 7 kg. Elderly: The elderly are at increased risk of serious consequences of adverse reactions. If an NSAID is considered necessary, the lowest effective dose should be used and for the shortest possible duration. The patient should be monitored regularly for GI bleeding during NSAID therapy. If renal or hepatic function is impaired, dosage should be assessed individually. For oral administration. To be taken preferably with or after food, with a glass of water. Brufen tablets should be swallowed whole and not chewed, broken, crushed or sucked on to avoid oral discomfort and throat irritation. A transient sensation of burning in the mouth or throat may occur with Brufen Syrup and Brufen Granules; ensure the syrup is thoroughly shaken before use and the granules are dissolved in plenty of water. **Contraindications:** Brufen is contraindicated in patients with hypersensitivity to the active substance or to any of the excipients. Brufen should not be used in patients who have previously shown hypersensitivity reactions (e.g. asthma, urticaria, angioedema or rhinitis) after taking ibuprofen, aspirin or other NSAIDs. Brufen is also contraindicated in patients with a history of gastrointestinal bleeding or perforation, related to previous NSAID therapy. Brufen should not be used in patients with active, or history of, recurrent peptic ulcer or gastrointestinal haemorrhage (two or more distinct episodes of proven ulceration or bleeding). Brufen should not be given to patients with conditions involving an increased tendency to bleeding. Brufen is contraindicated in patients with severe heart failure, hepatic failure and renal failure. Brufen is contraindicated during the last trimester of pregnancy. **Special warnings and precautions for use:** Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms. Patients with rare hereditary problems of galactose intolerance, the Lapp lactose deficiency or glucose-galactose malabsorption should not take this medication. As with other NSAIDs, ibuprofen may mask the signs of infection. The use of Brufen with concomitant NSAIDs, including cyclooxygenase-2 selective inhibitors, should be avoided due to the increased risk of ulceration or bleeding. Elderly: The elderly have an increased frequency of adverse reactions to NSAIDs, especially gastrointestinal bleeding and perforation, which may be fatal. Paediatric population: There is a risk of renal impairment in dehydrated children and adolescents. Gastrointestinal bleeding, ulceration and perforation: GI bleeding, ulceration or perforation, which can be fatal, has been reported with all NSAIDs at anytime during treatment, with or without warning symptoms or a previous history of serious GI events. The risk of GI bleeding, ulceration or perforation is higher with increasing NSAID doses, in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation, and in the elderly. These patients should commence treatment on the lowest dose available. Combination therapy with protective agents (e.g. misoprostol or proton pump inhibitors) should be considered for these patients, and also for patients requiring concomitant low dose aspirin, or other drugs likely to increase gastrointestinal risk. Patients with a history of gastrointestinal disease, particularly when elderly, should report any unusual abdominal symptoms (especially gastrointestinal bleeding) particularly in the initial stages of treatment. Caution should be advised in patients receiving concomitant medications which could increase the risk of ulceration or bleeding, such as oral corticosteroids, anticoagulants such as warfarin, selective serotonin-reuptake inhibitors or anti-platelet agents such as aspirin. When GI bleeding or ulceration occurs in patients receiving Brufen, the treatment should be withdrawn. NSAIDs should be given with care to patients with a history of ulcerative colitis or Crohn's disease as these conditions may be exacerbated. Respiratory disorders: Caution is required if Brufen is administered to patients suffering from, or with a previous history of, bronchial asthma since NSAIDs have been reported to precipitate bronchospasm in such patients. Cardiovascular, renal and hepatic impairment: The administration of an NSAID may cause a dose dependent reduction in prostaglandin formation and precipitate renal failure. Patients at greatest risk of this reaction are those with impaired renal function, cardiac impairment, liver dysfunction, those taking diuretics and the elderly. Renal function should be monitored in these patients. Brufen should be given with care to patients with a history of heart failure or hypertension since oedema has been reported in association with ibuprofen administration. Cardiovascular and cerebrovascular effects: Appropriate monitoring and advice are required for patients with a history of hypertension and/or mild to moderate congestive heart failure as fluid retention and oedema have been reported in association with NSAID therapy. Epidemiological data suggest that use of ibuprofen, particularly at a high dose (2400 mg/ daily) and in long term treatment, may be associated with a small increased risk of arterial thrombotic events such as myocardial infarction or stroke. Overall, epidemiological studies do not suggest that low dose ibuprofen (e.g. £ 1200mg daily) is associated with an increased risk of arterial thrombotic events, particularly myocardial infarction. Patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease should only be treated with ibuprofen after careful consideration. Similar consideration should be made before initiating longer-term treatment of patients with risk factors for cardiovascular events (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking). Renal effects: Caution should be used when initiating treatment with ibuprofen in patients with considerable dehydration. As with other NSAIDs, long-term administration of ibuprofen has resulted in renal papillary necrosis and other renal pathologic changes. Renal toxicity has also been seen in patients in whom renal prostaglandins have a compensatory role in the maintenance of renal perfusion. In these patients, administration of an NSAID may cause a dose-dependant reduction in prostaglandin formation and, secondarily, in renal blood flow, which may precipitate overt renal decompensation. Patients at greatest risk of this reaction are those with impaired renal function, heart failure, liver dysfunction, those taking diuretics and ACE inhibitors and the elderly. Discontinuation of NSAID therapy is usually followed by recovery to the pre-treatment state. SLE and mixed connective tissue disease: In patients with systemic lupus erythematosus (SLE) and mixed connective tissue disorders there may be an increased risk of aseptic meningitis. Dermatological effects: Serious skin reactions, some of them fatal, including exfoliative dermatitis, Stevens-Johnson syndrome, and toxic epidermal necrolysis, have been reported very rarely in association with the use of NSAIDs. Patients appear to be at highest risk of these reactions early in the course of therapy, the onset of the reaction occurring within the first month of treatment in the majority of cases. Brufen should be discontinued at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity. Haematological effects: Ibuprofen, like other NSAIDs, can interfere with platelet aggregation and has been shown to prolong bleeding time in normal subjects. Aseptic meningitis: Aseptic meningitis has been observed on rare occasions in patients on ibuprofen therapy. Although it is probably more likely to occur in patients with systemic lupus erythematosus and related connective tissue diseases, it has been reported in patients who do not have an underlying chronic disease. Impaired female fertility: The use of Brufen may impair female fertility and is not recommended in women attempting to conceive. In women who have difficulties conceiving or who are undergoing investigation of infertility, withdrawal of Brufen should be considered.**Undesirable effects:** Gastrointestinal disorders: The most commonly observed adverse events are gastrointestinal in nature. Peptic ulcers, perforation or GI bleeding, sometimes fatal, particularly in the elderly, may occur. Nausea, vomiting, diarrhoea, flatulence, constipation, dyspepsia, abdominal pain, melaena, haematemesis, ulcerative stomatitis, exacerbation of colitis and Crohn's disease have been reported following ibuprofen administration. Less frequently, gastritis has been observed. Gastrointestinal perforation has been rarely reported with ibuprofen use. Pancreatitis has also been reported very rarely. A transient sensation of burning in the mouth or throat may occur with Brufen Syrup and Brufen Granules. Immune system disorders: Hypersensitivity reactions have been reported following treatment with NSAIDs. These may consist of (a) non-specific allergic reaction and anaphylaxis, (b) respiratory tract reactivity comprising asthma, aggravated asthma, bronchospasm or dyspnoea, or (c) assorted skin disorders, including rashes of various types, pruritus, urticaria, purpura, angioedema and, more rarely, exfoliative and bullous dermatoses (including Stevens-Johnson syndrome, toxic epidermal necrolysis and erythema multiforme). Cardiac disorders and vascular disorders: Oedema, hypertension and cardiac failure have been reported in association with NSAID treatment. Epidemiological data suggest that use of ibuprofen, particularly at high dose (2400 mg/ daily), and in long term treatment, may be associated with a small increased risk of arterial thrombotic events such as myocardial infarction or stroke. Other adverse events reported less commonly and for which causality has not necessarily been established include: Blood and lymphatic system disorders: Leukopenia, thrombocytopenia, neutropenia, agranulocytosis, aplastic anaemia and haemolytic anaemia Psychiatric disorders: Insomnia, anxiety, depression, confusional state, hallucination Nervous system disorders: Optic neuritis, headache, paraesthesia, dizziness, somnolence. Infections and infestations: Rhinitis and aseptic meningitis (especially in patients with existing autoimmune disorders, such as systemic lupus erythematosus and mixed connective tissue disease) with symptoms of stiff neck, headache, nausea, vomiting, fever or disorientation. Eye disorders: Visual impairment and toxic optic neuropathy. Ear and labyrinth disorders: Hearing impaired, tinnitus and vertigo. Hepatobiliary disorders: Abnormal liver function, hepatic failure, hepatitis and jaundice. Skin and subcutaneous tissue disorders: Bullous reactions, including Stevens-Johnson syndrome and toxic epidermal necrolysis (very rare), and photosensitivity reaction. Renal and urinary disorders: Impaired renal function and toxic nephropathy in various forms, including interstitial nephritis, nephrotic syndrome and renal failure. General disorders and administration site conditions: Malaise, fatigue.

Supply classification: POM.

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Authorisation numbers: AA150/01402, AA150/01404-6. **Date of Revision of Text:** July 2014 **Date of Preparation:** August 2014

For further information about the product, please refer to the full summary of product characteristics.

THE UNIVERSITY
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COLLEGE OF MEDICINE AND VETERINARY MEDICINE
EDINBURGH DENTAL INSTITUTE

Under its Director, Professor Angus Walls, Edinburgh Dental Institute is moving forward with new postgraduate degrees in development. The University of Edinburgh has invested significant resource to support new academic staff appointments and in developing distance learning.

The online distance learning version of the popular MSc in primary dental care was launched in February 2013 and has had great feedback form the current students. It covers a wide range of advanced general practice topics supported by a bespoke virtual learning environment.

Students can log-in on the move, in the practice and at home to access all the teaching material any time. The course is very interactive but flexible to suit students all over the world with different time commitments. Through a conjoint arrangement with the Royal College of Surgeons of Edinburgh, successful students also receive a Membership in primary dental care from RCSEd without further examination.

The Edinburgh Dental Institute was established in 1999 to develop educational opportunities for dental postgraduates and the dental team. It has excellent facilities and is situated centrally within the historic and vibrant capital of Scotland, in Lauriston Place in Central Edinburgh. It occupies the top three floors of the Lauriston Building which is a dedicated out-patient centre for dentistry and a number of other medical disciplines. Edinburgh Dental Institute works in partnership with two major organisations to deliver high quality education, research and patient care.

The activities of EDI are as a result of strong cooperation and collaboration between the University of Edinburgh, NHS Lothian, NHS Education for Scotland and the Royal College of Surgeons of Edinburgh. Great opportunities exist for high quality education and research within a welcoming and friendly environment. The modern facilities and the presence of staff who are experts in their fields allow students to make the most of their postgraduate studies.

Great emphasis is placed on individual teaching and learning. Because of the relatively small number of postgraduates, the teaching ratios, guidance and research supervision is excellent. Edinburgh Dental Institute has advantages over larger postgraduate institutes in that learning programmes can be personally tailored to the students' needs.

The clinical facilities include 62 dental chairs, and facilities for sedation. The teaching facilities include two very modern clinical skills laboratories and seminar rooms with the latest AV technology. Students have computer access within the Dental Institute and full access to library and other facilities within the University.

The University of Edinburgh has been ranked 20th in the world in the QS world rankings. This confirms the international reputation of a modern and forward thinking University. However, it also has a long and illustrious history.

Continues on page 7.

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THE UNIVERSITY of EDINBURGH

COLLEGE OF MEDICINE AND VETERINARY MEDICINE
EDINBURGH DENTAL INSTITUTE

Continues from page 6.

Our modern College of Medicine also has an international reputation. In the last research assessment exercise, it was rated top in the UK for medical research submitted to the Hospital-based Clinical Subjects Panel. All of the work was rated at International level and 40% at the very highest 'world-leading' level.

EDI currently deliver teaching for the following University of Edinburgh degree programmes:

UNDERGRADUATE
BSc in Oral Health Sciences

POSTGRADUATE
MSc in primary dental care
MClinDent in prosthodontics
MClinDent in orthodontics
MClinDent in paediatric dentistry
MClinDent in oral surgery
PhD
DDS
MSc in dental implants *(first intake 2015)*

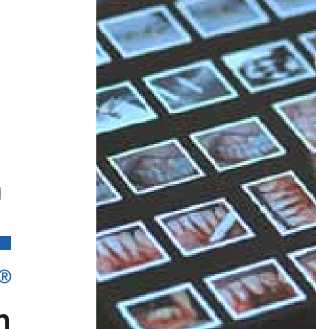
Dr David Muscat editor of the Dental Probe presenting the Journal to Dr Oomagh Laurie, Head of 'Masters in Primary Dental Care' (Online Distance Learning) Postgraduate course at Edinburgh Dental institute of the University of Edinburgh.

The BSc in oral health sciences is an undergraduate degree that allows graduates to register as dental therapists or to apply for graduate entry further training.

The MSc in primary dental care is an online distance learning programme providing Masters-level education for primary care dentists with particular emphasis on restorative dentistry and advanced general practice.
The MClinDent degree programmes are 2-year full-time taught masters programmes in a range of dental specialties designed to provide education, clinical training and research experience within their chosen field. There is the option of remaining for a 3rd year to prepare to sit the relevant specialty membership diploma from RCS Edinburgh to allow application to the relevant UK specialist list via mediated entry. These posts do NOT attract a National Training Number (NTN).

PhD degrees are dental research degrees that are either offered full time (three years) or part time (six years). The research degrees provide training in specific research methodologies. Those registered for formal research degrees also have the opportunity for formal generic training in research skills, provided within the College.

For more information please visit www.dentistry.ed.ac.uk



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THE SECRETS OF SUCCESSFUL COMPOSITES

By Dr Wynn Jenkins BDS DPDS
Venue: Phantom Head Room, Biomedical Building, Level O, Msida Campus, University of Malta
Summarised by Dr David Muscat

2 SESSIONS
AM: 3rd,4th,5th year students
PM: Dentists who use Voco, who booked on first come basis

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THE PRINCIPLES OF ADHESION

Wet the prepared surface intimately and change the adhesive from a liquid to a solid in an undisturbed manner. If the surface is micromechanically rough, one has good adhesion.

SURFACE PREPARATION

Macro-mechanical-parallel
Walls undercut
Sandblasting
Citric acid

BONDING SURFACE ENAMEL, DENTINE PORCELAIN, METAL, COMPOSITE/RESIN

Silanated porcelain has a bond strength of 44 megapascals. Silanes need to be applied at the time of fit. Their half life is 3-4 months so it goes off within a year .Note that in the new Futurabond modified 6th generation dual cure there is a silane agent incorporated into the bonding agent so you can use this for ceramic repairs without having to buy a kit.

VERY IMPORTANT POINT PROPERTIES OF ADHESIVES

Non-cytotoxic, pulpal sensitivity, compatibility with resins, bond strength. To be effective the bond strength has to be at least 15 megapascals. The film thickness is usually about 5-10microns. Type of cure, long term follow up ,microleakage, shelf life. Ease of use/cost.

DENTINE BONDING-NOWADAYS THERE ARE SMEAR LAYER MODIFIERS OR REMOVERS

ACIDS Used in dentistry- phosphoric acid 20-40%;nitric acid 2.5%;citric acid; HF; EDTA.
Total etch;
4th generation-separate etching,2 bottles, self curing, eg for veneers
5th generation-separate etching, one bottle, priming –adhesive (***with this material one has to use self cure)***
Self Etch- separate etching, 2 bottles adhesive, applied after another or mixed before
OR separate etching, one bottle, etch-prime-adhesive, may become unstable

RESIN TAGS

The dwelling time is the time one should leave the resin to soak into the tooth and create the hybrid layer before.

BOND ENHANCERS

Stiff materials will not wet walls and will pull away from walls during polymerisation.eg air abrasion 'Abradent'.

EFFECTS OF ETCHING

Thin layer of flowable composite on the dentine first. Deeper dentine is less well mineralised. How good is your curing light? You have sealed and bonded the dentine. Nowadays the polymerisation shrinkage is small – less than 1% with new materials. Thin layer of flowable composite on the dentine.

COMPOSITE VARIABLES

Filler size particle will affect polishability.
Method of cure
Shading opaque/translucent.
Physical properties relate to filler size.
MICROHYBRID: strong but looks dull. Mixture of glass particle fillers with a mean particle size of 0.4-0.6 microns. Silicon dioxide filler 0.04 microns.
MICROFILL: smaller filler particles. Lack strength resulting in marginal ridge or incisal ridge chipping. Can be finished and polished to a high gloss.
NANOFILL: particles up to 100nm in diameter. Pack more into composite. Strength of hybrids but can be polished better.

CURING LIGHTS

1. **HALOGEN OUTPUT 200MW/CM** Frequency drops off with use as does the depth of cure. Needs to be checked with a light meter. Bulbs need changing.
2. **LED 300-1500MW/CM.** Most common. Frequency does not fall. On or off. To check your bulb, stack several washers on top of one another, place composite inside and cure. Check depth to how far down you have cured.
3. **PLASMA AIR LIGHT 200MW/CM** Ten times stronger. Less risk polymerisation failure. Bulbs lose frequency. Bulbs very expensive.

GRANDIO-87%FILLER AND 13% RESIN

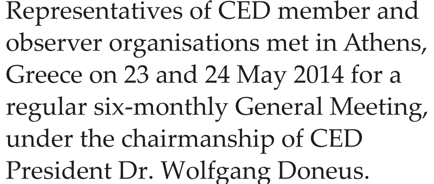
High hardness, abrasion resistant and fracture resistant.

Continues on page 38.

EUROPEAN DENTISTS ADOPT POLICY ON VOCATIONAL TRAINING, ANTIMICROBIAL RESISTANCE AND ONLINE EVALUATIONS OF DENTISTS, DECIDE ON THE THEME OF THE EUROPEAN ORAL HEALTH DAY 2014

COUNCIL OF EUROPEAN DENTISTS

Press Release – 27 May 2014



Representatives of CED member and observer organisations met in Athens, Greece on 23 and 24 May 2014 for a regular six-monthly General Meeting, under the chairmanship of CED President Dr. Wolfgang Doneus.

The meeting was hosted by the Hellenic Dental Association, in the context of the Greek EU Presidency.

The meeting started with a welcome address by the Greek Minister of Health, Mr Spyridon Adonis Georgiadis. The CED representatives were also welcomed by the President of the Hellenic Dental Association, Dr Athanasios Katsikis.

The Council of European Dentists (CED) is a European not-for-profit association which represents over 340,000 practising dentists through 32 national dental associations and chambers from 30 European countries.

Its key objectives are to promote high standards of oral healthcare and effective patient-safety centred professional practice across Europe, including through regular contacts with other European organisations and EU institutions.

VOCATIONAL TRAINING

During the plenary session, Members of the CED unanimously adopted a Resolution on vocational training (VT).

CED Members stressed that VT is not aimed at providing knowledge which is already part of the basic dental training, neither to question the ability of new graduates to practise dentistry, but to help them implement the theoretical knowledge into practice and equip them with more clinical and managerial experience for a better overall patient management in an independent environment.

The CED recognizes that health systems delivering oral healthcare are different across the European Union and considers the recommendations set out in the Resolution as a tool which can be adapted and used on a voluntary basis according to each CED Member's national legal framework, higher education system, professional practice model as well as requirements of the modernised Directive 2005/36/EC.

The Resolution is the result of fruitful work of the CED Working Group Education and Professional Qualifications which until the CED General Meeting in Athens was led by Prof. Dr. Konstantinos Oulis. Prof. Dr. Oulis stepped down as Working Group chair during the General Meeting.
The CED would like to express its deepest gratitude for all his valuable work and commitment to the CED and the dental profession for many years. CED representatives appointed Prof. Dr. Paulo Melo as a new Working Group chair.

ANTIMICROBIAL RESISTANCE

CED Members unanimously adopted a Resolution on antimicrobial resistance (AMR).

The European dentists acknowledge the importance of the use of antibiotics in dentistry, as they account for a broad majority of medicines prescribed in dentistry.

The CED is concerned with the serious consequence of AMR which will no longer allow to prevent or treat some infections. CED Members believe that it is essential in terms of both public and oral health that dentists prescribe antibiotics in a responsible way.

ONLINE EVALUATIONS OF DENTISTS

CED Members adopted a Resolution on online evaluations of dentists.

The Resolution is a response to the rise, in recent years, in popularity of websites allowing patients to submit online reviews rating their local dental practice or individual dentist. The CED supports patients' feedback to help dentists maintain high standards and quality and improve patient experience in their practices. However, the European dentists are concerned with websites posting anonymous reviews which lack of moderation.

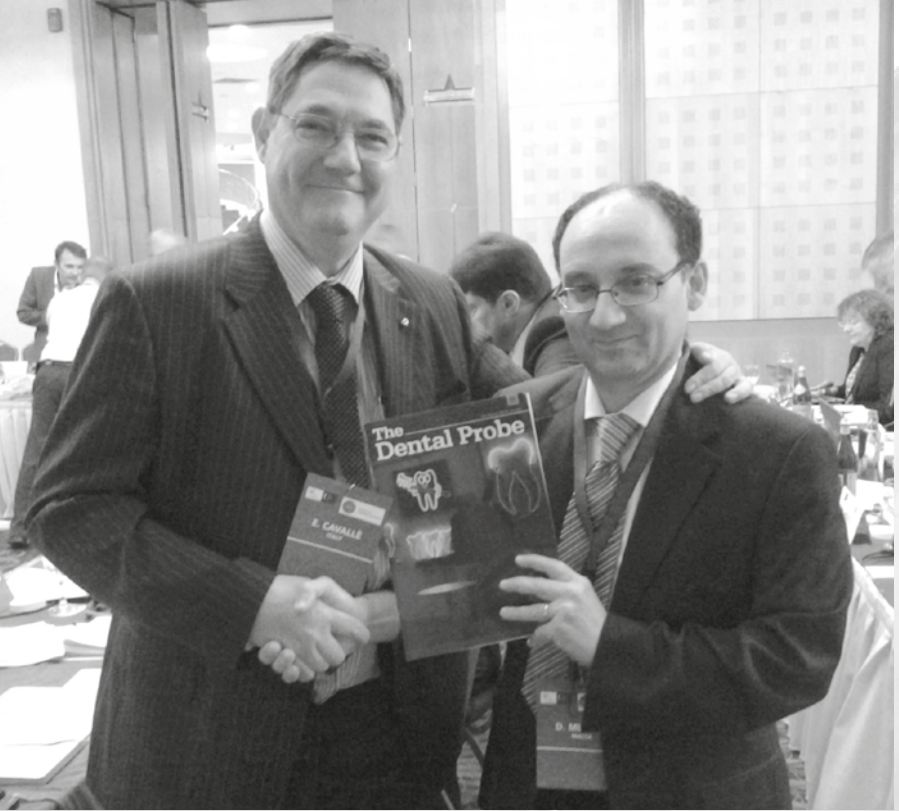
Therefore, the CED recommends some quality criteria for online evaluation of dentists in order to ensure that patients are provided with fair and accurate information.

EUROPEAN ORAL HEALTH DAY 2014

CED Board recommended to CED Member Associations to focus on the theme "Oral health and diabetes" on the occasion of the European Oral Health Day on 12 September 2014.

The choice of the theme was guided by the dramatic increase during the last decade of the number of people suffering from diabetes and rather poor public awareness of how to prevent oral disease in diabetes patients.

This presents a unique opportunity to raise awareness about the links between diabetes and oral health and about the important role dentists can and increasingly do play in early diagnosing and management of treatment of diabetes across the EU.



Dr David Muscat international liaison Officer of the DAM presenting the Probe to Dr Eduardo Cavalle from Italy at the Council of European Dentists Conference in Athens Greece in May 2014.

THE FEDCAR ASSEMBLY IN ROME

MAY SPRING MEETING

The FEDCAR Spring meeting was held in Rome by FNOMCeO at the NH Hotel Leonardo da Vinci on 9 May 2104.It was attended by 20 delegates from 13 countries. After the adoption of the minutes of the last meeting there were several items discussed

1. THE I DIRECTIVE 2013/55
The IMI technical adaptation –this act involve notification by member states of the specific competent authority sending and receiving the alert ie. not automatically the CA or the registration body. Training on IMI during 2015 and operational by 18/2/2016.

Member states who send an alert will also have to update the EPC file accordingly. Updates will include all information relating to prohibition or restriction. Forging documents is subject to alert only after a decision to sanction 'who have subsequently been found by courts to have falsified evidence of professional qualifications.'

2. DENTAL SPECIALITIES PARTIAL ACCESS
The professional must be fully qualified. He may be rejected for overriding reasons of general interest.

3. PROFESSIONAL CARD – NO PLANS FOR THIS IN DENTISTRY
Selected activities such as nurses,doctors ,pharmacies,physiotherapists,engineers, mountain guides and real estate agents.

4. EVALUATION OF REGULATED PROFESSIONS NEW ARTICLE 9 OF RPQ DIRECTIVE.
Member states shall examine whether requirements restricting the access to a profession by the holders of a specific professional qualifications are compatible with the following;

a. must not be discriminatory on the basis of nationality or residence
b. must be justified by reasons of national interest
c. must be suitable for securing the objective and not go beyond what is necessary to attain that objective.

Dr David Muscat DAM International Relations Officer presenting the Probe to Dr. Diana Terlecic Dabic from Croatia at the FEDCAR Conference in Rome in May 2014

5. EU INITIATIVES TO REPORT
There is a working group set up to identify the top 10 obstacles to market entry in terms of hampering, complicating or slowing down business operations such as documentation, financial reporting, re registration, reconfirming qualifications or labour legislation.

Minimal professional standards and compliance with codes of professional ethics are considered appropriate to protect the trust of the service recipients. There has to be a balance between the identity and the objective of mobility.

The commission will welcome a 'one stop shop', 'once-only reporting'; electronic submissions and sampling procedures. The commission will work towards the development of common framework of professional standards.

The next steps of the commission are:

a. formal representation of the liberal professions
b. create a liberal professional forum
c. explore creation of working groups

DENTAL DEVELOPMENTS COSMETICS
Rrecommendations to include procedures on injectables ,lip augmentation procedures, with different rules at national level.

DATA PROTECTION
The rules regarding data protection office, conduction of risk assessment and impact assessment and requesting prior authorisation from national supervisory authority are too unrealistic and these have to change.

AMALGAM
Still not enough information to make comprehensive risk assessment on environment. One has to look at what alternatives such as resins contain.

RADIATION – COUNCIL DIRECTIVE 2013/59.
Basic safety standards for protection against the dangers arising from exposure to radiation in force.

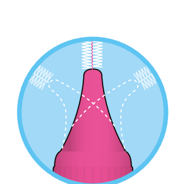
6. RESULTS OF SURVEY
Blood taking by dentists for platelet rich plasma for use in implant surgeries- rules vary in different countries as to who is allowed to do this.

NITROUS OXIDE SEDATION
Some countries allow properly trained dentists usually supported by another member of the dental team. In some countries such as Estonia, Croatia and certain parts of Spain such as Madrid and Canary Islands an anaesthetist has to be present.
Dr David Muscat BDS (LON)
Medical Council of Malta Member

ASK FOR OUR 25-BRUSH DENTIST PACKS

Interdental Cleaning – the easy way

- Eight colour coded sizes
- Plastic coated wire
- User-friendly handle
- Developed in collaboration with Swedish dental professionals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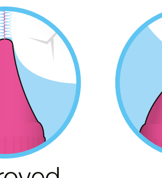
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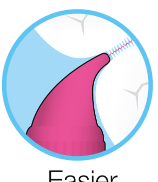
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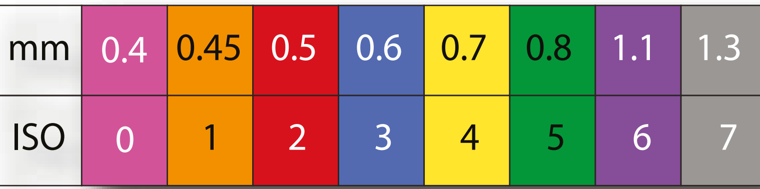

mm	0.4	0.45	0.5	0.6	0.7	0.8	1.1	1.3
ISO	0	1	2	3	4	5	6	7

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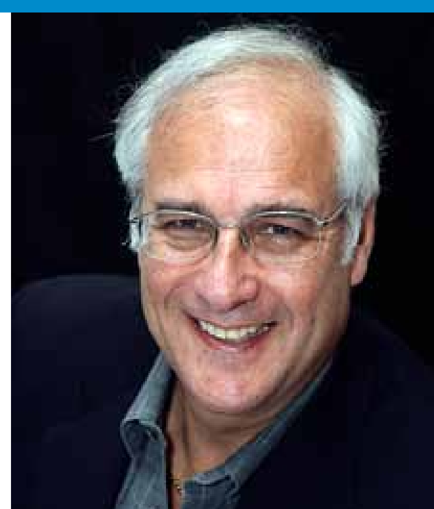
OPTRASCULPT PAD

INTERVIEW WITH DR GLAZER



How did the idea for a sculpting instrument with foam tips originate?
My two partners, Dr. Dominic Viscomi and Brian Viscomi, and I were fooling around with foam to sculpt a direct resin veneer and we discovered that it would not stick to any composite and left no marks when moving the composite. Brian then went on to design a handle and a way to hole the foam on the handle.

How did you sculpt sticky composite resins in the past? What were the disadvantages?
In the past all we had were metal instruments and then over time other instruments evolved with tips of rubber, silicone, teflon or even gold but none worked well. These types of instruments would leave indentations and a rough appearance to the composite surface. We also have had composite warmers and vibrating/oscillating instruments that all tried to make the composites more fluid to allow for better placement. Sometimes we would use a fine sable brush to move and shape the composite resins but these brushes would leave striations on the composite surface and we had to make them disposable since there was no effective way to sterilize them between patients.

In what way has OptraSculpt Pad changed your work with composite resins?
OptraSculpt Pad has made it remarkably easy to work with any composite since it is an ideal modeling instrument for shaping and contouring all composites. You can work faster and achieve a great esthetic result in less than half the time using any other instrument. A real bonus is how the OptraSculpt Pad leaves the surface in a state that requires very little finishing and polishing.

What is so special about OptraSculpt Pad?
In addition to what I mentioned above, the fact that there are disposable tips in varying sizes makes it suitable for many types of restorations. And, the reference scales on the handle are quite valuable when doing direct anterior restorations.

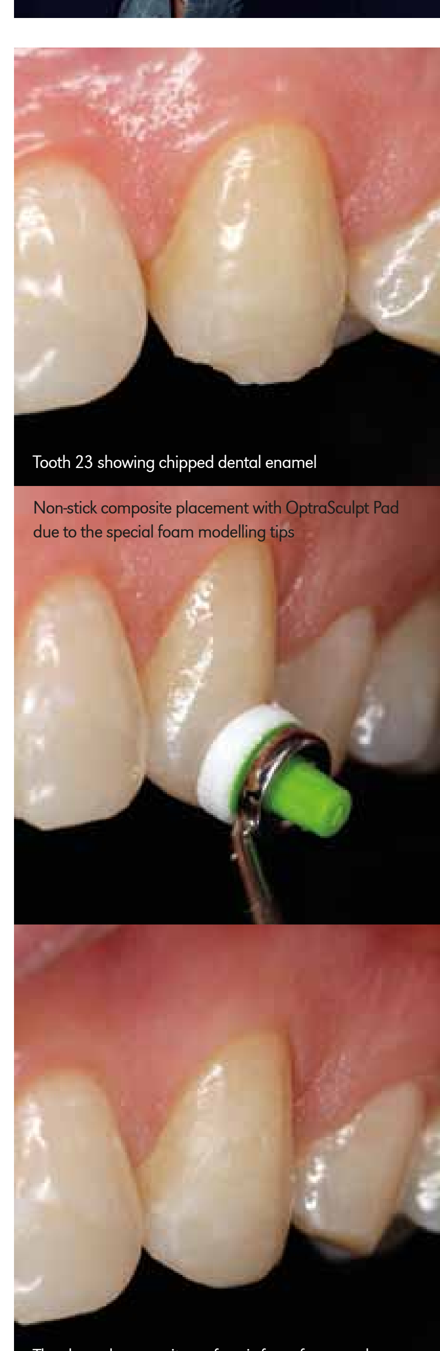
What are the advantages of OptraSculpt Pad compared with other composite modelling instruments?

a) Moves composite easily and leaves no marks
b) You can place and spread the composite without any pull-back, stickiness (i.e. sticking to the instrument) or leaving any indentations
c) Surface requires only minimal finishing and polishing, which saves time and money!
d) No other instrument to my knowledge has a reference scale which indicates the average size of the anterior teeth and their natural inclination toward the midline.

In your opinion, what kind of influence does OptraSculpt Pad have on the treatment procedure involving composite resin filling materials?
There is no doubt that the profession is rapidly moving towards more direct composite restorations in part due to the economy, and in a great part, due to the esthetic nature of composite restorations. OptraSculpt Pad will be a genuine asset to the profession in composite placement.

What kind of advice would you give to your colleagues for using OptraSculpt Pad?
Once you try the OptraSculpt Pad you will never use a metal instrument on resin again for sculpting and contouring. This is a no-brainer when it comes to time savings and achieving a highly esthetic result.

Clinical case: Dr L. Enggist, Ivoclar Vivadent AG, Schaan, 2013



Tooth 23 showing chipped dental enamel

Non-stick composite placement with OptraSculpt Pad due to the special foam modelling tips

The shaped composite surface is free of any marks

Non-stick effect for efficient contouring

Ivoclar Vivadent has developed the innovative modelling instrument OptraSculpt® Pad in order to meet the demand for efficient processing of highly-esthetic composites.

Despite the excellent mechanical properties of composite materials, their contouring remains a very demanding task for dentists even today. Highly esthetic composites, in particular, sometimes demonstrate a very adhesive consistency due to their filler composition, and they are thus more difficult to shape.

OptraSculpt® Pad is a contouring instrument with special foam pad attachments, which is designed for the efficient, non-stick forming and shaping of composites. It is especially suitable for the contouring of class III, IV and V restorations as well as of direct veneers.

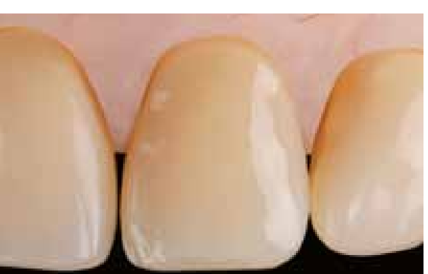
Suitable for dental technicians:
OptraSculpt Pad is also optimally suitable for applying and modelling lab composites. Therefore, the efficient processing of composites is equally supported in dental labs.

Non-stick shaping and contouring
The non-stick attachments of OptraSculpt Pad enable composite materials to be shaped and contoured with ease, without leaving any unwanted marks. Thus, composite restorations with smooth and even surfaces are fabricated with utmost efficiency.

Shaping and contouring with OptraSculpt Pad

Shaping and contouring with a metal spatula

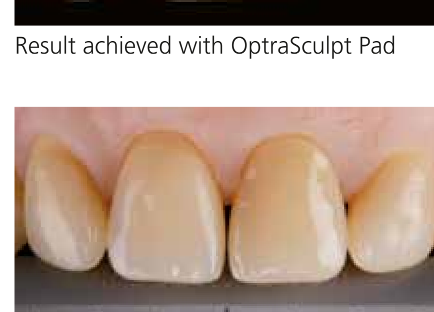
Smooth and even surfaces
Due to the special material of the pads, natural-looking restorations are easily accomplished in only a few steps. The highly flexible synthetic foam pads optimally adjust to the anatomical contours and allow smooth modelling.



Result achieved with OptraSculpt Pad

Result achieved with a metal

Professional esthetic results
The reference scales on the instrument handle assist in the creation of esthetic and anatomically-correct restorations. The markings allow the clinical situation to be compared with the ideal average tooth width proportions and angular alignments in the upper anterior dentition.



Reference scale 1

Reference scale 2

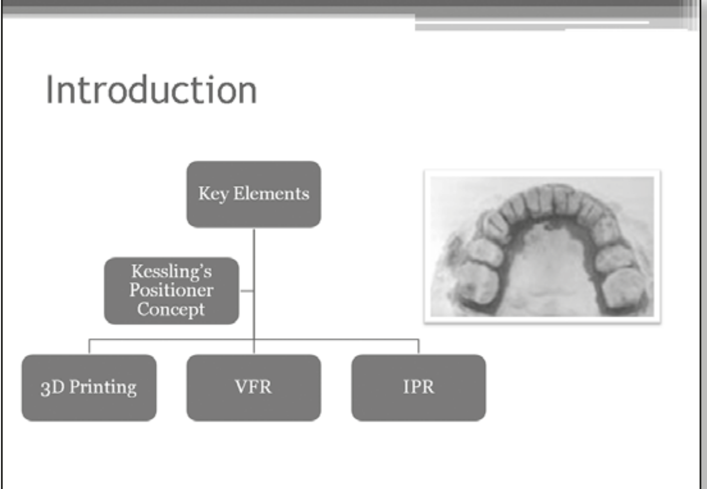
For further information, please visit www.ivoclarvivadent.com

ORTHODONTIC ALIGNERS TIPS AND TUMBLES

Jan-Marc Muscat
B.Ch.D. M.Sc. M.J.D.F. (Eng.) M.Orth. (Edin.)

Introduction

- Appliances that blend modern technology with the long-standing concept of using clear flexible splints to ease teeth into line.
- As with any other form of orthodontics, **assessment**, **diagnosis** and **case selection** are key to a successful outcome.



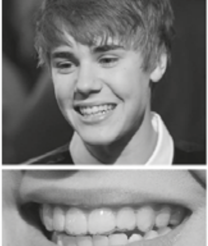
Introduction

- Became popularised following the establishment of Align Technology by Chisti and Wirth.
- FDA approval granted in 1998

Marketing

- The New York Times

"..the most aggressive consumer advertising plan the dental profession has ever seen"

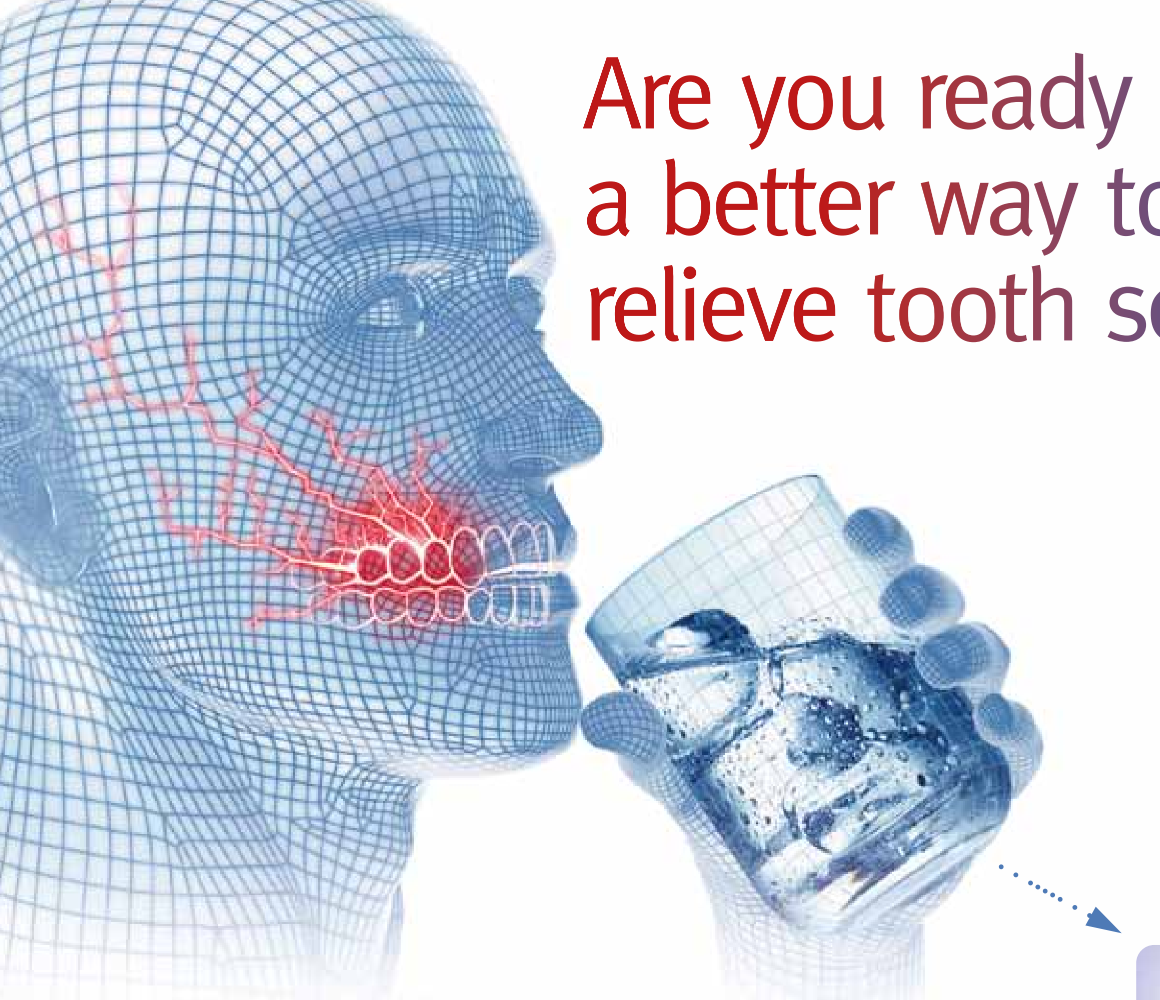


"Change is the law of life. And those who look only to the past or present are certain to miss the future."
John F. Kennedy

Guidelines - British Orthodontic Society

INDICATIONS	CONTRA-INDICATIONS
✓ Mild dental irregularity	❖ Moderate to severe crowding
✓ Crowding that may be accommodated by slight expansion of the arch	❖ Treatments that require tooth extraction
✓ Crowding that may be accommodated by minor reductions in tooth width	❖ Treatment requiring complex tooth movements particularly of the roots
✓ Mild spacing	❖ Problems that are a reflection of an underlying skeletal jaw discrepancy

Continues on page 18.



Are you ready for a better way to relieve tooth sensitivity?

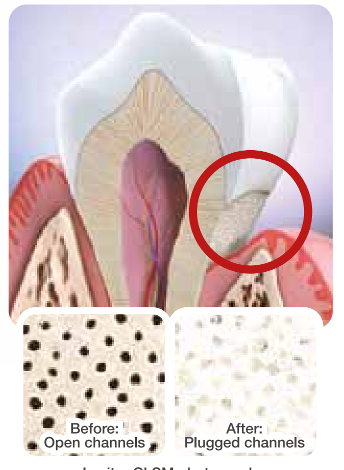
That sharp, stabbing feeling of sensitivity is something you may no longer need to endure.

Announcing the arrival of a toothpaste so revolutionary, so different, it addresses the cause of sensitivity, not just the signs.

And with direct application, it can give instant sensitivity relief.*

Colgate® Sensitive Pro-Relief™ is the only toothpaste to contain the advanced PRO-ARGIN™ technology. This breakthrough formula works by instantly plugging the channels leading to the tooth centre.

Brush twice a day for lasting sensitivity relief.



In vitro CLSM photographs

Sounds incredible? That's why we want you to try Colgate® Sensitive Pro-Relief™ for yourself. For details, or to learn more, log on to www.colgatesensitive.com.

Instant and Lasting Sensitivity Relief... *prove it to yourself.*

* For instant relief massage a small quantity directly on the sensitive tooth for one minute.

Exclusively distributed by von Brockdorff Imports Ltd.

ORTHODONTIC ALIGNERS TIPS AND TUMBLES

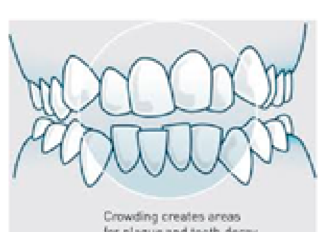
Continues from page 16.

Guidelines - Unofficial

- Patients who have had orthodontic treatment in the past and have now relapsed
- Adults, whose mouths are likely to contain crowns, bridges and implants
- May be an indication for compromised health patients where oral hygiene is mandatory
- Part of a hybrid orthodontic treatment plan.

Why Correct? - American Orthodontic Society

- There is an increased chance of plaque , food and calculus build-up to occur in between teeth
- Increased overbite may cause excessive wear and breakdown of both upper and lower front teeth
- An improper bite may impair chewing which can lead to G.I. problems



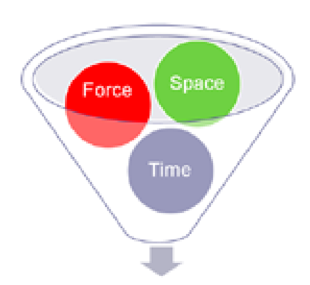
How does it work?

How Invisalign Works

- Step #1 Diagnosis & Treatment Plan
- Step #2 PVS Implementation & Bite Registration
- Step #3 3-D Computer Modeling
- Step #4 ClinCheck®
- Step #5 Manufactured Appliances
- Step #6 Results & Retention

Biomechanics

- Sheridan's first Law of Biomechanics



Tooth Movement

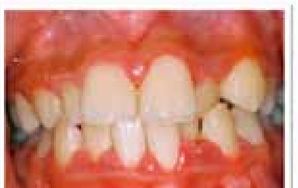
Consent

As with Any other orthodontic treatments various potential risks may present

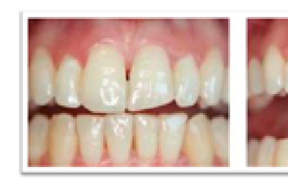
The official Invisalign® consent form lists **30** *'risks and inconveniences'* !!!

Consent - Salient Points

- As one may expect most consent issues are ramifications of the patient's oral hygiene, periodontal and restorative status



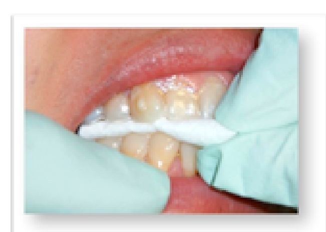
Consent - Salient Points



- Teeth which have been overlapped for long periods of time may be missing the gingival tissue below the interproximal contact once the teeth are aligned, leading to the appearance of a 'black triangle' space.

Consent - Salient Points

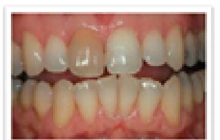
- Short clinical crowns can pose appliance retention issues and inhibit tooth movement.
- (In light of this these cases will often require a hybrid approach including a short course of fixed appliance therapy at the end of treatment.)

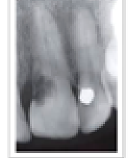


Engagers or 'Handles' may be used to improve retention

Consent - Salient Points

- A tooth that has been previously traumatised, or significantly restored may be aggravated. In rare instances the useful life of a tooth may be reduced....





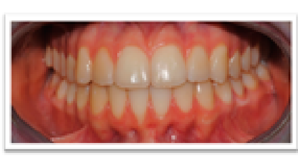
Consent - Fine Print

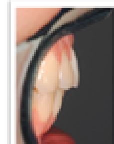
"Align Technology is not a provider of medical, dental or healthcare services and does not and cannot practice medicine, dentistry or give medical advice....As the treating doctor you are solely responsible for the treatment of your patients."

Tips - Keep them Clear!

- Do NOT use denture cleaners to clean aligners.
- Do NOT soak them in mouthwash.
- These products can damage the surface of the aligner, causing it to become dull and more visible.

Tips - Watch the gingivae!





- Clearly; Orthodontic treatment of any kind should not be undertaken when there is active disease
- Watch out for 'washboard' type of gingivae (Melsen 2006)

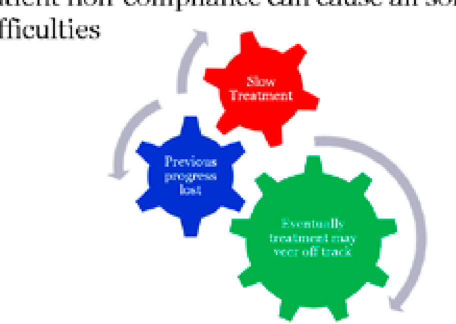
Continues on page 20.

ORTHODONTIC ALIGNERS TIPS AND TUMBLES

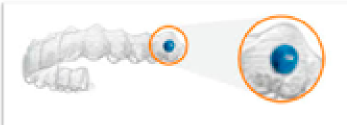
Continues from page 19.

Tips - Compliance

- Patient non-compliance can cause all sorts of difficulties



Tips - Compliance



- **20-22 hours of wear are recommended**
- Invisalign has attempted to introduce compliance indicators for younger patients in the form of discolouring tablets incorporated into the aligner

"Compliance indicators are not immune to simple intentional or unintentional manipulations. Therefore, they can best show an estimate of wear time but cannot be recommended as objective wear-time indicators"

(Shot and Göz 2011)

Tips - Space Analysis / Limitations

Ball Park Figures

- Cumulatively, spacing should not exceed 6mm
- Arch expansion / proclination can accommodate between 2-4mm of crowding

Tips - Interproximal Reduction

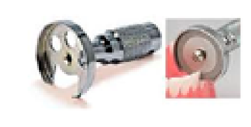
- Various recommendations of amounts that can be removed **5-9mm**
- Approximately half the enamel thickness may be removed (Boese 1980)
- Influenced by tooth shape
- No increased incidence of dental problems in a group of subjects that had had IPR more than 10 years previously (Zachrisson 2007)

Advantages of IPR

1. Less loss of tooth material
2. Smaller tooth movements
3. Less treatment time
4. Less root resorbtion risk
5. Greater Stability?
6. Better Aesthetics
7. Imitation of a physiological process because extensive attrition was a feature of the natural human dentition before civilization led to consumption of increasingly soft food

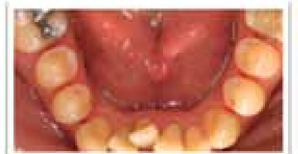
Tips - IPR

1. Interproximal discs (should only be used using disc guard)
2. Interproximal strips – hand pulled or motor driven
3. Air-rotor stripping (ARS) using thin diamond tips (5500) or carbide burs (699LC)



Tumbles - Guaranteed Law Suit

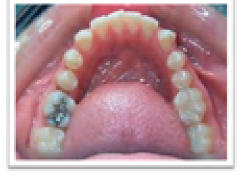
Judicious | **Over Zealous**



Tumbles - Crowding vs Crowding

- What is often described by the collective term crowding can in fact be distinguished into 3 categories:

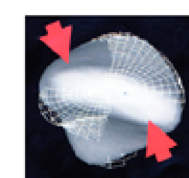
1. Labio-lingual malpositions
2. Rotation
3. Inclineation (torque) discrepancies

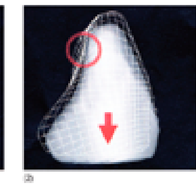


Tumbles - Crowding vs Crowding

- Cylindrical teeth generally cannot be resolved by standard aligners
- *"The accuracy of rotation for the maxillary canines (32.2%) was significantly lower than that of the maxillary central incisors (54.2%)"* Kravitz (2009)
- If the canines are rotated more than **15°** then traditional braces or combination therapy should be used to achieve desired result.
- Molar rotation may also be a problem due to root resistance

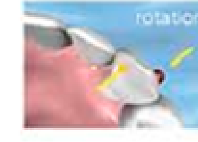
Tumbles - Rotations





- A snug fit is essential for de-rotation otherwise the moment of force may in fact become extrusive rather than rotatoy

Tips -Rotations



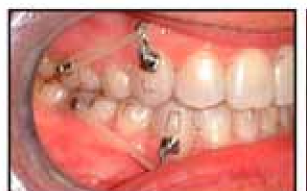
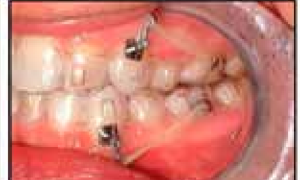
- The use of buttons and 'power ridges' may help improve rotatory efficiency.
- However the evidence for this remains weak especially when treating canines.
- Vertical-ellipsoid attachments and IPR do not significantly improve the accuracy of canine rotation (Kravitz et al. 2008)

Continues on page 22.

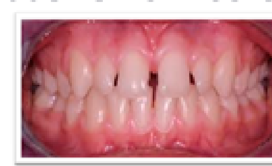
ORTHODONTIC ALIGNERS TIPS AND TUMBLES

Continues from page 21.

Is there a limit?

Tips - Tooth Size Discrepancy



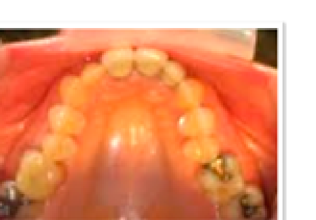
- Occurs when there is incongruity between the sums of the mesiodistal widths of sets of corresponding maxillary and mandibular arches
- Consider doing a **Bolton analysis** as part of your case assessment.
- A discrepancy greater than 1mm from the norm is considered significant.

Tips - Tooth Size Discrepancy / Options

1. Extract tooth in the arch with excessive tooth mass
2. Interproximal reduction in the arch with excessive tooth mass
3. Compromise angulation to occupy more or less space
4. Composite build-ups/ Veneers at end of treatment to close spaces
5. Accept residual spacing.

Tips - Narrow Arches

- Narrow arches are characterized by being tapered rather than U-shaped
- Ideal cases 'may permit' 2-3mm per side of expansion.
- The limiting factor is the amount of buccal bone available and overlying periodontium.



Tips - Aligner Fit

- Before inserting into the mouth immerse the aligners in water to counter-act the aligners hydrophilic nature
- Fit is acceptable if all teeth are fully covered by the aligner material, with all margins being smooth and fitting close to the alveolus without impingement *(Miethke and Vogt 2005)*

Tumbles -Aligner Fit

- Presence of saliva bubbles between tooth and inner aligner surface indicates inadequate fit
- Incongruities between incisal edges/ attachments and aligner can easily identify fit discrepancies

Tumbles - Aligner Fit

Problem	Solution
Reasons may include: 1. Impression errors 2. Miscalculation during virtual definition of the CEJ 3. Poor compliance	Every previous aligners should be reversed sequenced until the one that fits best is found 'Mid-course correction' Adjuncts such as buttons on the aligners for elastics may be used to move lagging tooth

Stability and Retention

"....teeth have remarkable memories for their previous malpositions, and this will require continued use of retainers, at least on a part-time basis. Ordinarily night-time wear will suffice but if patients notice unwanted changes occuring they will need to wear them more."

White 2008

Stability and Retention

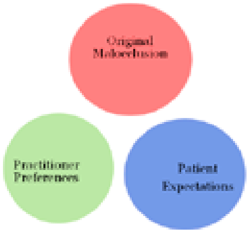
- Treatment that repositions anterior teeth will involve some degree of canine expansion which is highly prone to relapse
- Some weak evidence that patients treated with Orthodontic Aligners relapse more than patients treated with fixed appliances

(Kuncio et al. 2007)

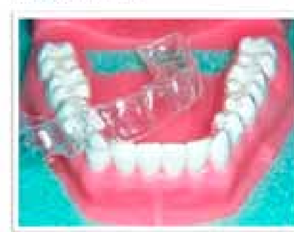
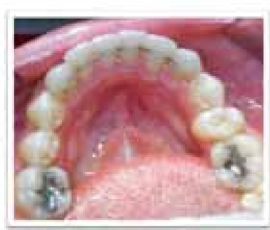
.....however

Retention

- There is a progressive move to indefinite retention
- Choice of retainer will depend on:



Protect your investment; use a retainer!

N.B. Using the final aligner as a retainer is NOT recommended

Conclusion

- **Experience** with Aligner therapy and **continuing education** are the two key requirements for a dentist to make treatment effective. **Education** in new techniques and procedures as well as **choosing the right patient** are the keys required to employ this treatment modality.

PATIENT ADAPTATION TO NEW DENTURES
HOW CAN THE PRACTITIONER HELP?

Dr A Busuttil BChD, MSc

Patient Adaptation to New Dentures: How can the practitioner help?

Dr A Busuttil BChD, MSc

My dentures move

My dentures are uncomfortable

I cannot eat well with my dentures

I get food trapped under my dentures

I keep biting my tongue/cheek when I wear these dentures

I cannot speak well with my dentures

My dentures fall out

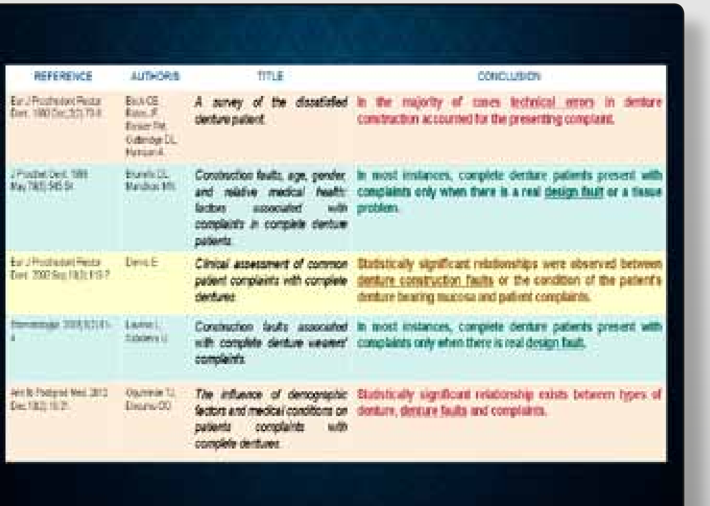
My dentures hurt

My denture teeth don't look nice when I smile

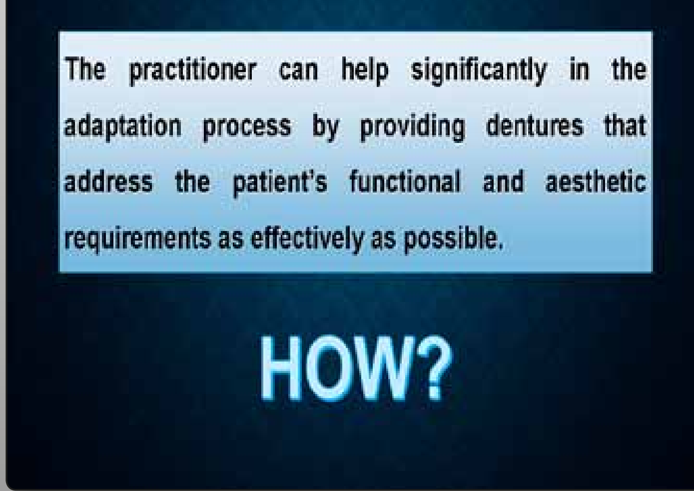
My dentures make me gag

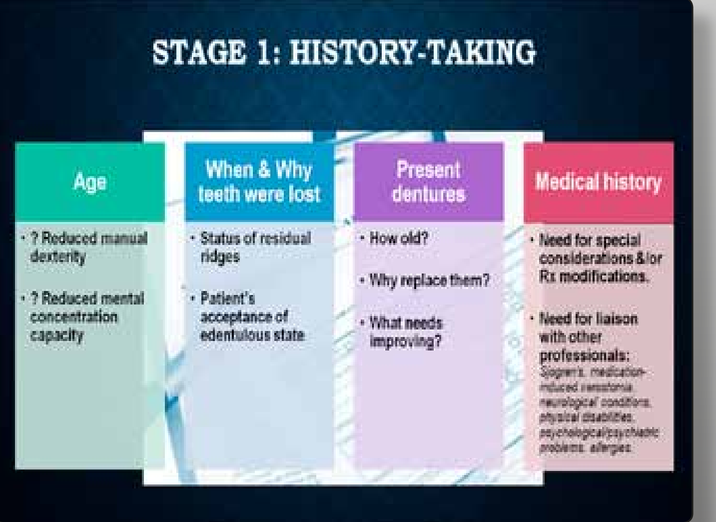
My bite doesn't feel right

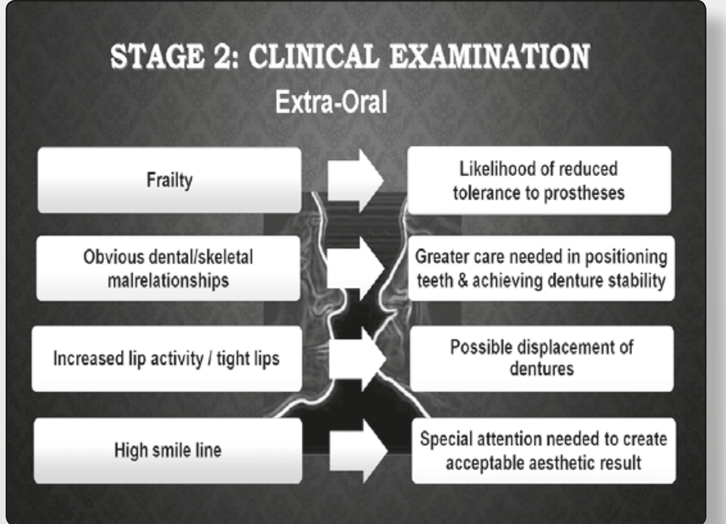
I have never been able to tolerate these dentures

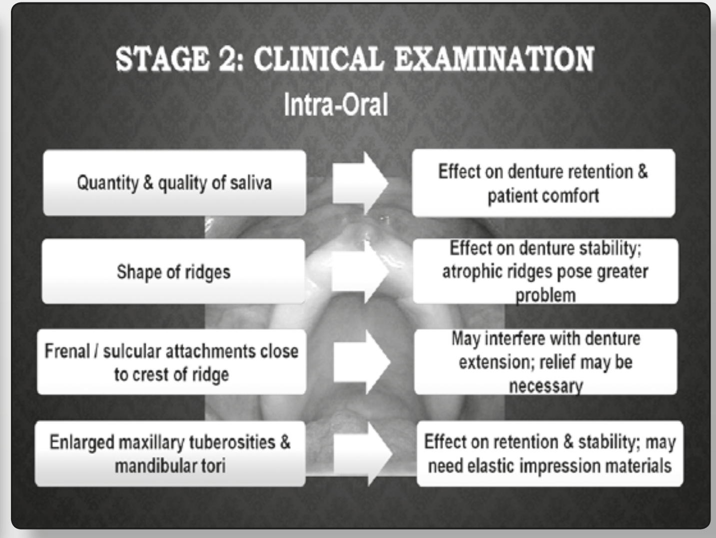


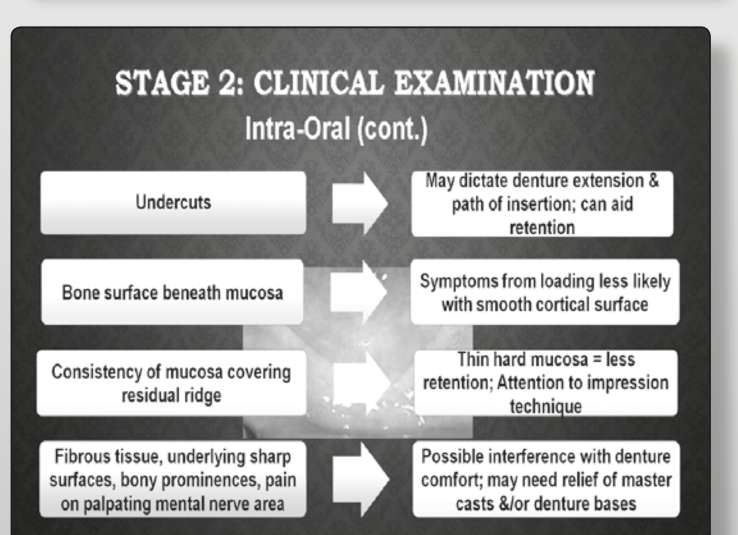
REFERENCE	AUTHORS	TITLE	CONCLUSION
[illegible]	[illegible]	A survey of the dissatisfied denture patient.	In the majority of cases technical errors in denture construction accounted for the presenting complaint.
[illegible]	[illegible]	Construction faults, age, gender and relative medical health: factors associated with complaints in complete denture patients.	In most instances, complete denture patients present with complaints only when there is a real design fault or a tissue problem.
[illegible]	[illegible]	Clinical assessment of common patient complaints with complete dentures.	Statistically significant relationships were observed between denture construction faults or the condition of the patient's denture bearing mucosa and patient complaints.
[illegible]	[illegible]	Construction faults associated with complete denture wearers' complaints.	In most instances, complete denture patients present with complaints only when there is real design fault.
[illegible]	[illegible]	The influence of demographic factors and medical conditions on patients' complaints with complete dentures.	Statistically significant relationship exists between types of denture, denture faults and complaints.

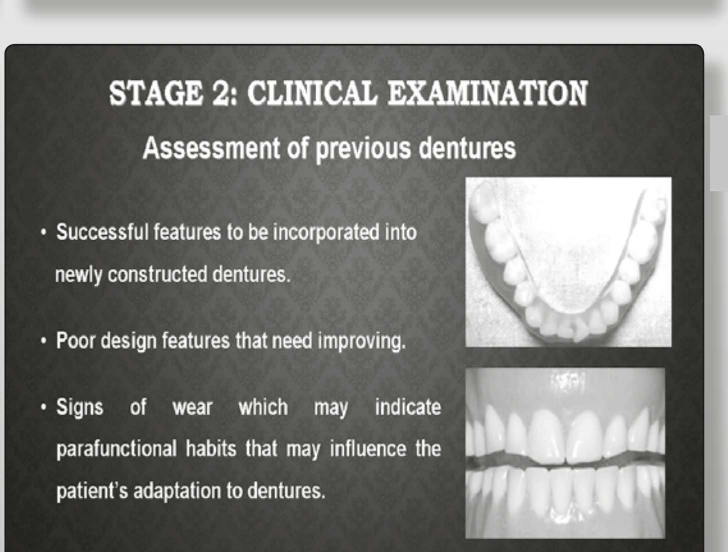


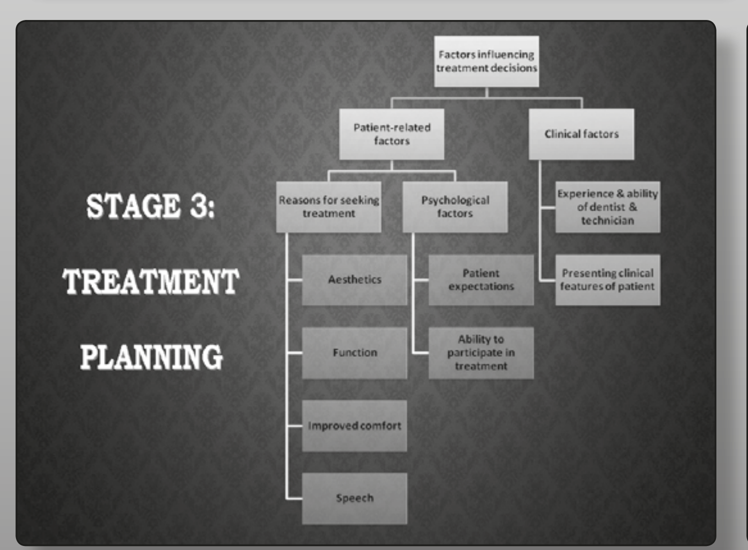


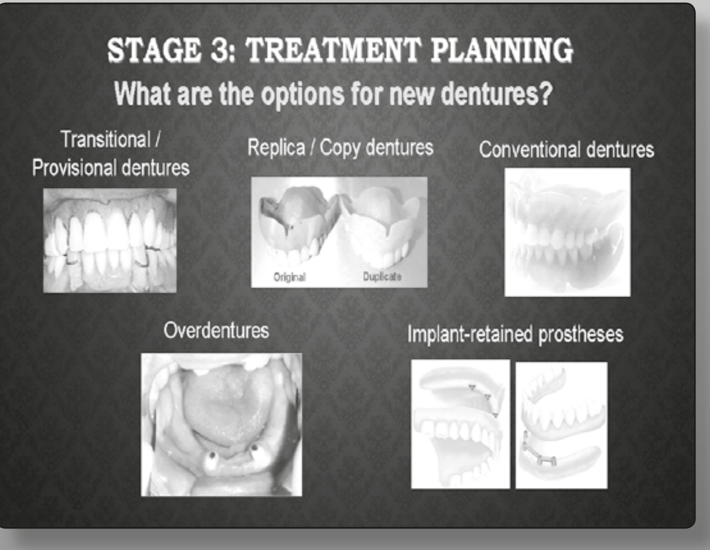












Continues on page 28.

BUSINESS INSURANCE… DEEP ROOT TREATMENT OR WHAT?

What is the worst that can happen? Who knows it depends on how sever the storm can be!. How hard financially can it hit me? It can never be that bad… can it? These few sentences which are common between friends and business colleague are all within the context of what it would mean if business insurance cover was not purchased and you left your business risk or risks in the hands of a greater power and always hoping for the best. We never really expect that a major disaster can hit us as it always happens to someone else… never to us!

In realistic terms an insurance policy covering the business operation is not going to cost and arm and a leg…or indeed require deep root treatment! A basic policy can offer and provide very simple and yet effective all round cover that will let you get on with your business without having to set aside additional financial resources or even lay wide awake thinking what can and cannot happen. A simple insurance policy can provide protection for the following:

- Building, Furniture, Fixtures and Fittings
- Equipment and tools [fixed and portable]
- Stocks
- Rent
- Glass
- Machinery
- Money
- Personal Accident

In addition to the above the policy can also be extended to cover Liabilities to the general public for slips and trips and even for property damage to the neighbours. Employees can be covered for work related injuries where the employer is legally liable to pay compensation.

Where one would want to expand the cover more a business interruption cover will provide payment in the event that the business will incur downtime and where the turnover can be covered for the loss of Gross Profit.

Think it over but don't be left exposed. Talk to your insurance advisor to make an appointment and discuss your personal requirements.

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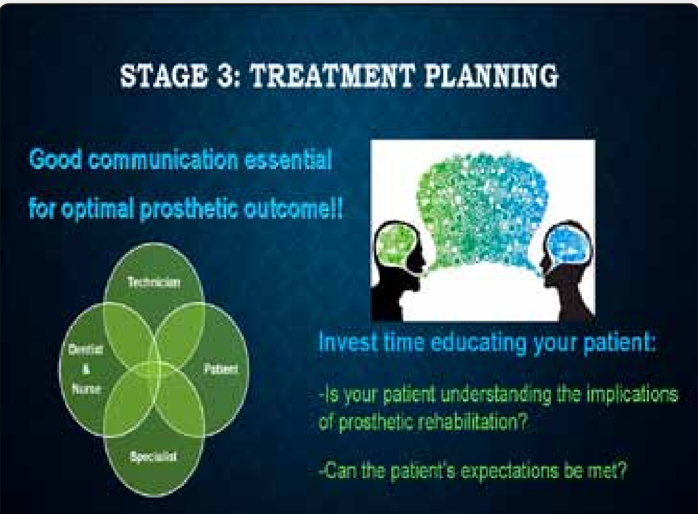
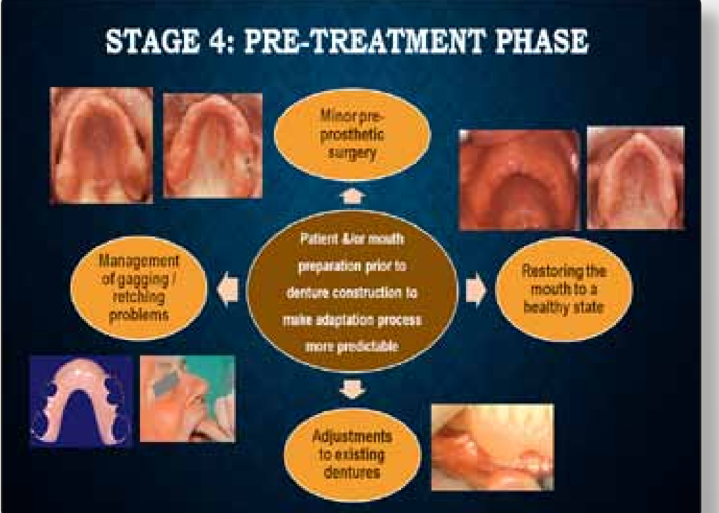
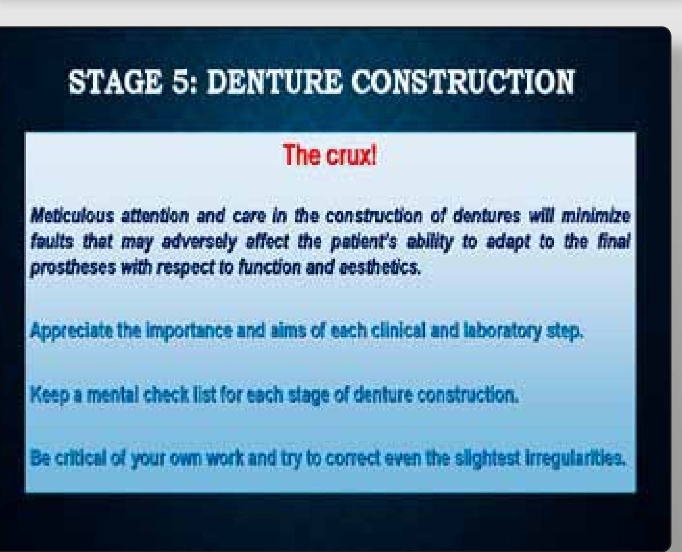
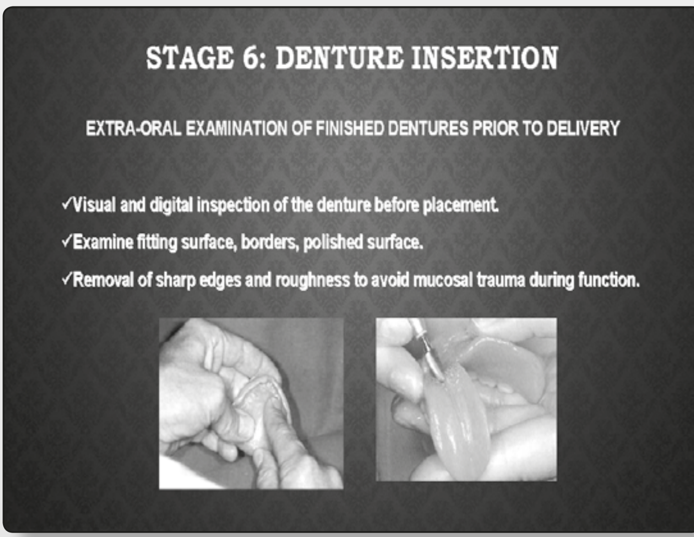
PATIENT ADAPTATION TO NEW DENTURES HOW CAN THE PRACTITIONER HELP?

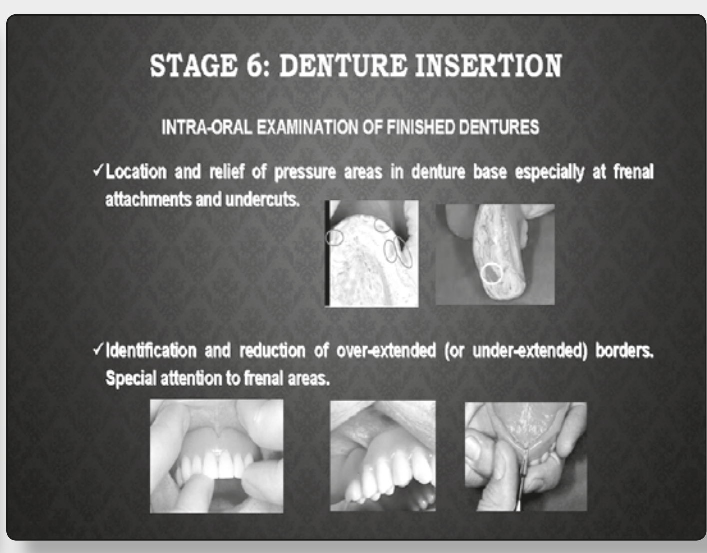
Continues from page 25.

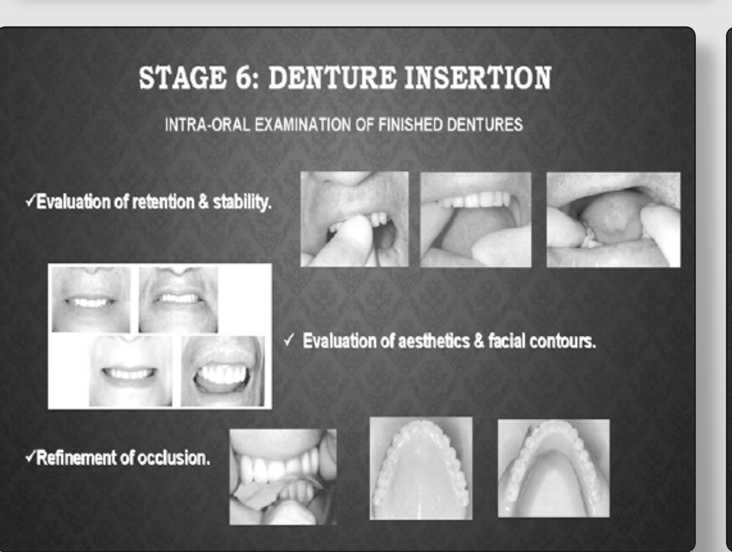


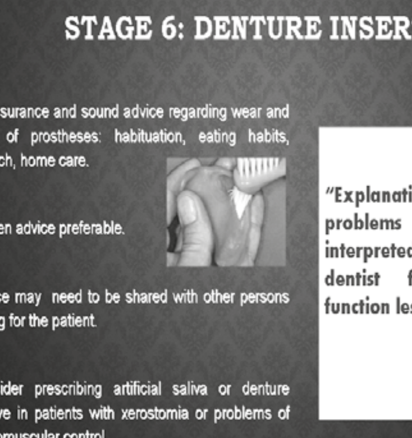


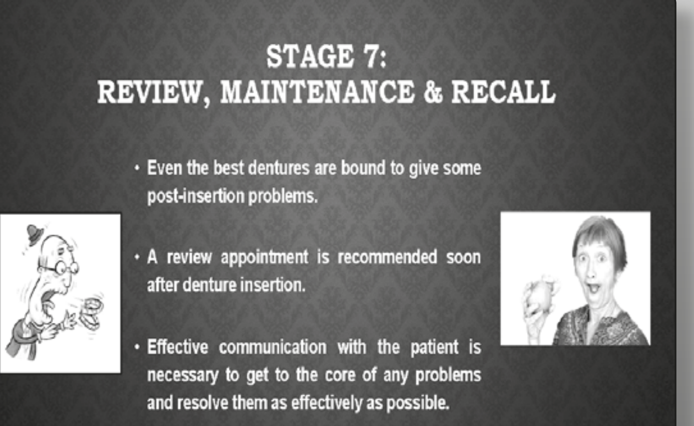


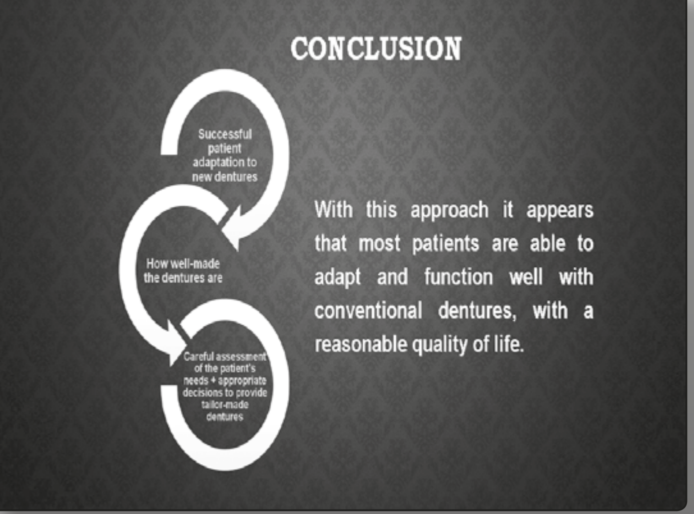












CONSCIOUS SEDATION – AN OVERVIEW

Dr Nicolas Bezzina
BChD, MFDS(Eng), PGDip(Conscious Sedation)

Presentation Content

- Introduction
- History
- Conscious sedation - definition and indications
- The ideal sedative, routes of administration
- Patient assessment
- Monitoring and treatment under sedation
- Summary
- Questions

Introduction

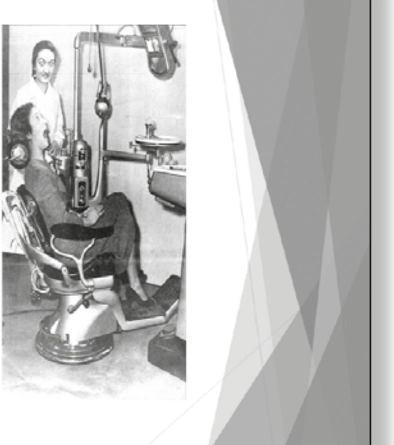
- Fear of dentistry has been recognized for many years
- A survey of 1000 adult Americans rated "going to the dentist" second only to fear of public speaking on a list of most feared activities
- Fear of dentistry is real and it is a problem
- Anxious patients delay treatment with the result of needing much more intervention
- This can be more complex, takes longer and might involve treatment like extractions, root canal treatments and implants which are more invasive and considered more painful

Anxiety

- Defined as "a specific unpleasant state of tension which indicates the presence of some danger to the organism"
- Learned process
- Personal experience
- Secondarily through the experience of others

Phobia

- Fear out of proportion to the demands of the situation
- Cannot be explained or reasoned away
- Beyond voluntary control
- Leads to avoidance of the feared situation



Fear

- Fear of pain
- Fear of the unknown
- Fear of helplessness
- Physiological features: sweating, shaking, increased breathing
- Cognitive features: hypervigilance, poor concentration
- Behavioural features: avoidance, poor co-operation, aggression

History

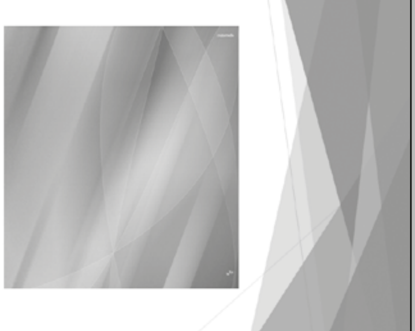
- 1771: Oxygen is discovered by Joseph Priestley
- 1772: Nitrous Oxide is discovered
- 1844: Dr Horace Wells had his own wisdom tooth extracted using nitrous oxide
- 1846: Ether administered for the removal of a jaw tumour

History

- 1903: First barbiturate (Barbitone) is produced
- 1930s: Short acting barbiturates methohexitone (Brietal) and thiopentone used to produce "insensitivity" in patients undergoing dental treatment
- 1933: First benzodiazepine synthesized
- 1966: Diazepam first used in France to provide dental sedation
- 1983: Midazolam becomes available
- 1988: Flumazenil (Anexate), a benzodiazepine reversal agent was introduced

Spectrum of Patient Management

- Behavioural management/local anaesthesia
- Non pharmacological methods: hypnosis, desensitization, acupuncture
- Inhalation Sedation with Nitrous Oxide
- Oral, Intranasal, Intramuscular, Intravenous Sedation
- General Anaesthesia



Definition of Conscious Sedation

A technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which ***verbal contact*** *with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation should carry a margin of safety wide enough to render loss of consciousness unlikely*

General Dental Council UK

Indications for Conscious Sedation

- To treat patients with dental anxiety and phobia
- To make an unpleasant procedure more acceptable to the regular patient
- To examine and treat special care patients
- Strong gag reflex
- To avoid general anaesthesia

Properties of the Ideal Sedative

- Painless on injection
- Rapid onset
- Predictable sedative and anxiolytic action
- Controllable duration of action
- Produces analgesia
- No side effects
- Rapid and complete recovery
- Reversible
- Amnesia
- No active metabolites

Routes of Administration

Oral
- Ease of administration
- Painless
- Unpredictable: over-sedation or under-sedation common
- Erratic absorption
- Prolonged onset

Continues on page 34.

THE MALTA ITI STUDY CLUB AT PALAZZO CASTELLETTI

On 12 November 2014 Dr Edward Sammut BChD MSc MClinDent MFDS MRD RCS ED led the first ITI Study Club in Malta at Palazzo Castelletti. The Study Club has just received approval from ITI HQ and this event was sponsored by Straumann and Bart Enterprises Ltd.

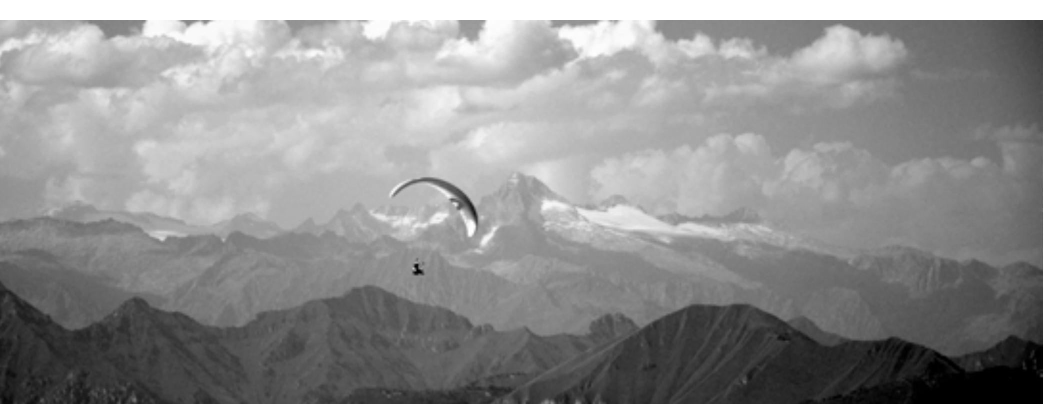
The event was well attended with all seats taken up. Dr. Sammut introduced us to the world of ITI and outlined the benefits of becoming an ITI member. The study club is held 3-4 times a year and is open to all ITI members. Non-members may attend up to three meetings but need to become ITI members to continue to attend thereafter.

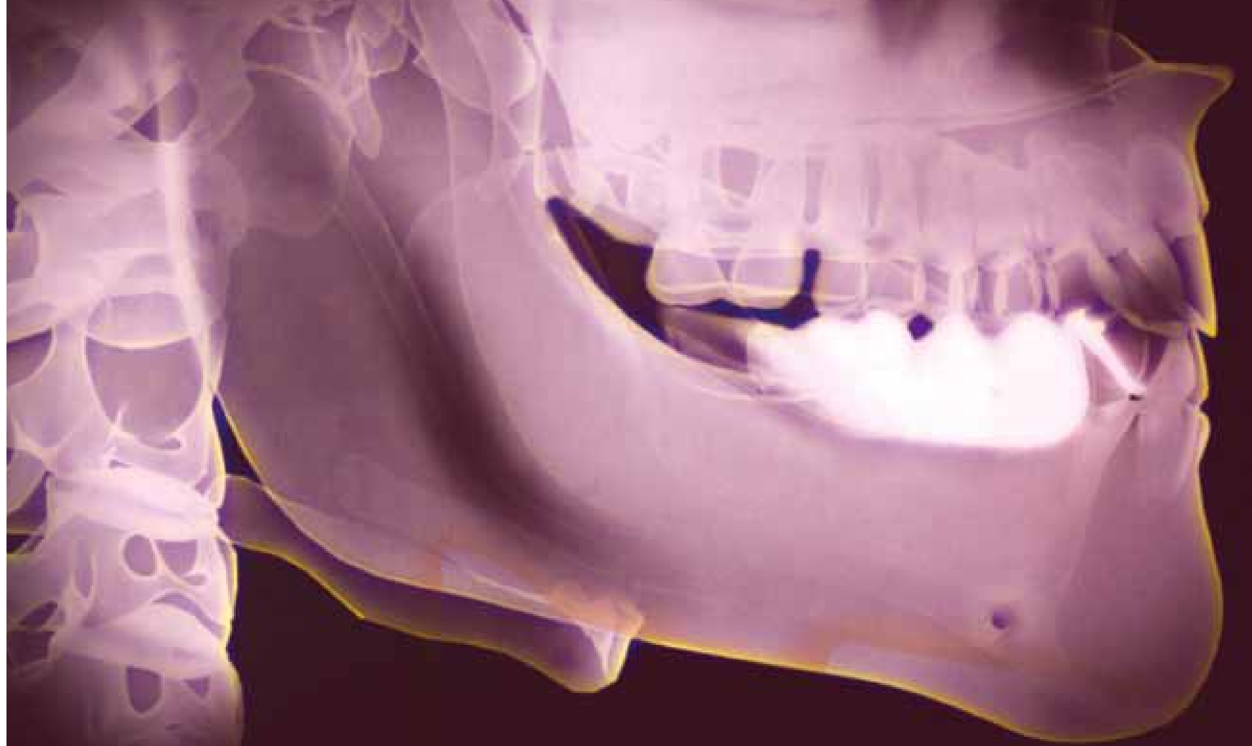
The mission of the ITI is “to promote and disseminate knowledge on all aspects of implant dentistry and related tissue regeneration through education and research for the benefit of the patient”.

In 2014 the ITI had in excess of 14,000 members and is growing fast. Money goes towards research and education. Straumann also donates funds for research and development.

The ITI study clubs are held on all aspects of implant dentistry including treatment planning, treatment delivery, handling of complications, practice management as well as technical and laboratory aspects of implant dentistry.

The first meeting was an introduction to the ITI and included a demonstration of the online SAC assessment tool, and a brief lecture about soft tissue aesthetics around implants. The next meeting will be held in early 2015. This is an excellent world class initiative and one to be encouraged. ■





Visual representation to illustrate partial denture in mouth

Even a well-fitting partial denture may compromise the health of your patients' remaining teeth[1]

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- Proven to help reduce plaque and stain build-up[8†]
- Non-abrasive[9] and non-corrosive[10] formulation

NEW **Corega for Partials Seal & Protect adhesive cream**

- Helps stabilise partial dentures to reduce movement[11]
- Helps seal out food particles to reduce gum irritation[11]

*Activity on *in vitro* bacterial biofilms after 5-minute soak. †When used as directed.

References
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CHMLT/CHPLD/0004/14d

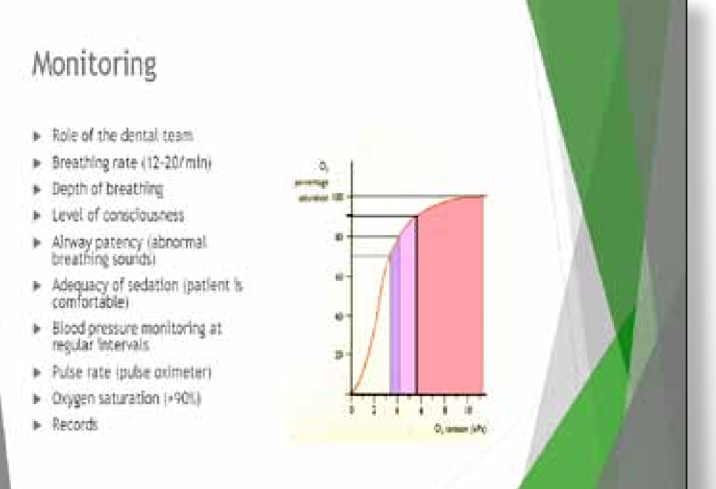
CONSCIOUS SEDATION

– AN OVERVIEW

Continues from page 31.

Pre-assessment Appointment

- Separate appointment
- Presenting complaint: dental and behavioural
- Medical history (ASA I and ASA II in primary care)
- Oral examination (can be difficult in some patients)
- Investigations
- Treatment planning: be realistic, leave options open
- Discuss pain and anxiety management options
- Informed consent
- Accompanying responsible adult



Continues on page 36.

CONSCIOUS SEDATION

– AN OVERVIEW

Continues from page 35.

Recovery and Discharge

- Allow patient to recover in a quiet environment
- Patient must remain under observation until fully recovered
- Recovery area should be equipped to an appropriate standard
- Discharge only after review by qualified practitioner
- Patient should be able to stand and walk without assistance
- Remove cannula
- Written & verbal instructions regarding aftercare given to both patient and responsible adult
- Avoid alcohol, driving, using machinery, signing documents, online shopping or writing on social media
- Patient discharged into the care of the responsible adult for the rest of the day

Pitfalls

- Communication and expectations
- Problems with cannulation
- Over-sedation: respiratory depression, rapid administration of sedatives, elderly patients, drug interactions, prolonged recovery
- Under-sedation: patient too alert, ?leaking vein, resistance to benzodiazepines
- Rapid recovery, talkative (mouth prop), crying, disinhibition (assistant always present)

Summary: Why Conscious Sedation?

- Safe
- Effective
- Wider range of treatments available compared to GA
- More accessible
- Cost effective

How does it help me?

- Offering patients a wider range of options in pain and anxiety management
- Visiting sedationist for complex work such as wisdom teeth extraction, implant placement, etc.
- Sedationist responsible for sedation equipment
- Location needs to be adequate in size
- Uncluttered floor space to allow CPR
- Good suction and lighting
- Patients can be referred to a specialist practice for treatment and discharged back to the care of their own dentist

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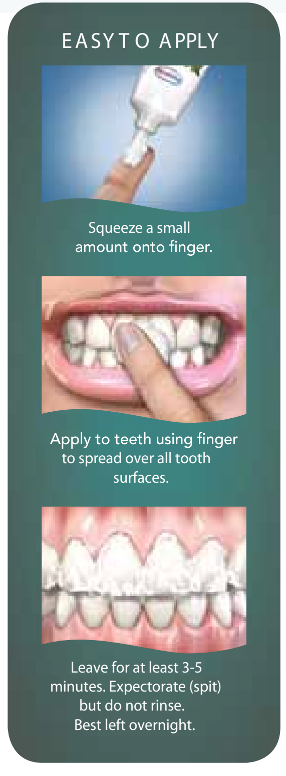

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THE SECRETS OF SUCCESSFUL COMPOSITES

Continues from page 6.

NEW FROM VOCO:
THE ALTERNATIVE TO CAD-CAM
If you wish to produce a composite inlay, use the new Voco kit. Take an impression of the cavity in alginate. Then use a silicone material in the alginate and within a minute you can produce a model. On this model you can manufacture your inlay and trim and polish it.

Bifix and Futurabond are used to cement the inlay. An excellent technique which produces an inlay of extreme hardness. And of course at a low cost. In the kit also come the polishers. On has enough for about 30 inlays. Besides the microfine diamonds one can use the new impregnated carbide brush.

GRAND TEC
This is a system I have been using successfully for several years. Composites have good compressive strength but poor tensile strength. Grand Tec, (which consists of a bundle of parallel-sided glass fibres) gives the tensile strength. It creates a synergy, and adapts the shade of the flowable composite.

The material consists of light-sensitive fibre systems so one needs to keep out light. The material is used to splint. This may be used to refix teeth once one has removed the root or even to replace a tooth temporarily if one is missing.

A wedge should be used so that the composite does not flow into embrasures. Grand Tec can also be used in conjunction with' Structur' to reinforce temporary bridges. Of course it can be used following trauma to splint or replace a missing tooth.

When using to refix a(periodontally affected tooth that needs to be extracted) lower tooth once one has cut off the root part one can first make a 'composite handle' onto the adjacent teeth prior to extracting . Grand Tec can also be used to build up core posts-use self cure Bifix with this.

One can also use Grand Tec in conjunction with preformed veneers in cases of avulsion when tooth cannot be found.

GRANDIO FLOW
This flowable composite is so strong that it can be used on its own to build up teeth. For example, with heavily worn down lower teeth, an impression can be taken and a model made up. The teeth are built up on the model and a blow down splint is then made.

The splint is filled with flowable composite and transferred to the patient. The appearance will also be very good. A microfine diamond can then be used to separate them as can a 'serisaw'. Grandio Flow can be used to replace missing teeth.eg to replace a premolar use 2 pieces of fibre.

Cut the foil in half using scissors. Then go from the palatal aspect of the 5 to the buccal surface of the 3. Then use a second strip to go from the buccal of the 3 to the buccal of the 5.

Dr David Muscat presenting the Probe to Dr Wynn Jenkins in the presence of Gregory Parmenter and John Fanning, Voco reps as well as Grace Taggert, Dental nurse at the Voco event at UOM.

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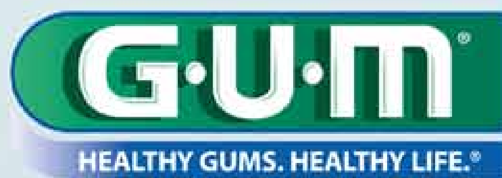

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