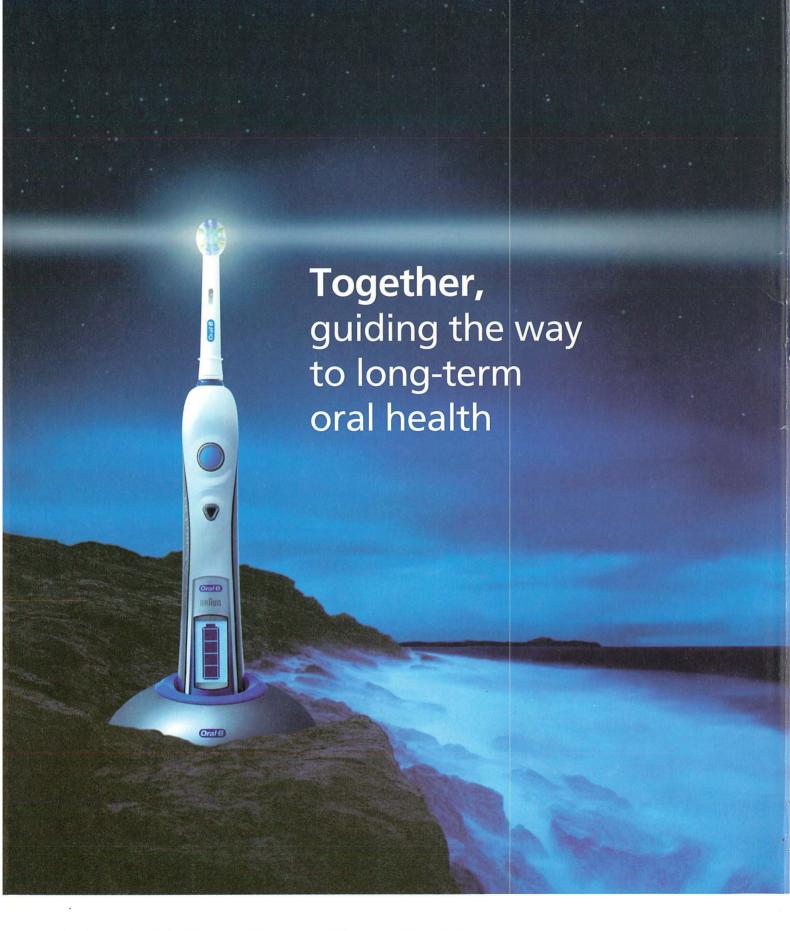
The The Maltese Dental Journal Dental Probe





Recommending Oral-B® Power toothbrushes can help your patients reach their long-term oral health goals. That's because the unique small round brush head design and the oscillating-rotating cleaning action ensure a superior clean in hard-to-reach areas, versus a regular manual brush.

Together with your brushing instructions, we can make the difference.



Editorial

DENTAL ASSOCIATION OF MALTA

The Professional Centre, Sliema Road, Gzira Tel. 21 312888 Fax: 21 343002

Fax: 21 343002 Email: info@dam.com.mt

By Dr David Muscat

Dear colleagues,

The DAM has appointed Father Mark Sultana as spiritual director to replace the recently deceased Father Jaccarini who celebrated mass for us for so many years at our St Apollonia events. Father Mark is a professor of Theology at the University of Malta.

Please note that dentists may avail themselves of EU funding to attend TAF (Training Aid Foundation) courses abroad and may contact the ETC in this regard.

Dentists can also upgrade their clinics via the Microinvest Scheme and should contact Malta Enterprise for further details. Dental suppliers will be able

to guide you regarding the courses one can attend and also the income tax refund schemes currently available.

The latest DAM events correct at the time of writing this article are listed on the right. Enjoy life with the DAM!

Advertisers are responsible for the claims they make in their ads and the opinion of the advertisers and editors of articles in the issue are not necessarily the opinion of the DAM.

Best regards,

David

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



The DAM Committee 2011–12: Drs Lino Said, Robert Lautier, Adam Bartolo, Nicholas Dougall, Ethel Vento Zahra, David Muscat, Audrey Camilleri, Paula Vassallo and Matthew Cachia.

LATEST/PLANNED EVENTS

17 MARCH

'Dentistry in Malta' by Professor George Camilleri at Lo Squero sponsored by Sanofi Aventis.

18 APRIL

'Oral medicine' lecture by Dr Michael Escudier, Consultant at Kings College Hospital at MFPB followed by dinner at Café Jubilee. Sponsored by GSK Augmentin.

4 MAY

Launch of Sensodyne 'Repair and Protect' by Dr. Gary Fleming at The Hilton sponsored by GSK.

17 MAY

Launch of Denplan at 'The Palace'Hotel Sliema by Dr Roger Matthews, followed by dinner. Sponsored by Atlas Insurance.

25 MAY

VOCO Event at Agape in Rabat with wine tasting sponsored by Page Technology.

16 JUNE

Maltese History lecture by Liam Cauchi sponsored by Bial Noprilam sponsors of event at Casino di Venezia Vittoriosa.

6 JULY

Launch of new Cariax mouthwash by ProHealth at Le Meridien Hotel

25 JULY

ORAL B Event at the Hilton (to be confirmed).

AUGUST

AUGUST Medicolegal Lecture – Attorney from USA .

European dentists call for better in and general health, adopt policy qualifications directive and the m

Representatives of CED member organisations met in Budapest, Hungary on 27 and 28 May 2011 for a regular six-monthly General Meeting, under the chairmanship of CED President Dr. Wolfgang Doneus.

The meeting was hosted by the National Committee for Hungarian Dentistry, composed of the Dental Section of the Hungarian Dental Chamber and the Hungarian Dental Association. The Council of European Dentists (CED) is a European not-for-profit association which represents over 327,000 practising dentists across Europe.

It is composed of 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.

FOR BETTER ORAL HEALTH OF ALL EU CITIZENS: MUTUAL INTEGRATION OF ORAL AND GENERAL HEALTH!

European dentists called for an integrated, common-risk approach to oral and general health.

They noted that risk factors for oral diseases are the same as for major chronic non-communicable diseases such as obesity, heart disease, stroke, cancers, diabetes and mental illness. Presence of an untreated oral disease in a patient also increases the risk of the patient developing one or more of other major chronic diseases.

Rather than attempting to tackle each

chronic disease in isolation, CED members called for a more effective approach, based on sharing of knowledge and cooperation between the patients and the healthcare professionals in primary care, as well as on disease prevention and health promotion activities directed at the common-risk factors.

They stressed the need for EU Member States to actively support oral health promotion and called on the EU to promote a comprehensive approach to fostering good health through improving information on risk factors, facilitating cooperation between stakeholders and between Member States and supporting general and oral health promotion and prevention campaigns at EU level.

CED RESOLUTION:

For better oral health of all EU citizens: Mutual integration of oral and general health!

REVIEW OF DIRECTIVE 2005/36/EC

In advance of the anticipated release of the Green Paper on the Directive on the recognition of professional qualifications (Directive 2006/35/EC), CED members affirmed their views on the possible changes of the Directive.

ntegration of oral on the professional edical devices directives

In an updated resolution "Review of Directive 2005/35/EC", European dentists strongly supported maintaining the principle of automatic recognition of professional qualifications for sectoral professions as well as the regime for temporary provision of services based on a pro-forma registration.

To streamline the procedures related to the two regimes, CED members called for greater use of electronic communications and other new technologies in dentists' contacts with competent authorities as well as increasing cooperation between competent authorities, including by extending the use of the Internal Market Information System (IMI).

However, they were in favour of simplification of the current recognition procedures only as long as this did not compromise patient safety.

CED members stressed the need to ensure that all European dentists are educated to a high level, including by specifying in the Directive that dental training should consist of at least 5 years and 5000 hours of training.

CED RESOLUTION:

Review of Directive 2005/36/EC

REVISION OF MEDICAL DEVICES DIRECTIVES

CED members noted the intention by the European Commission to present in 2012 a proposal for a fundamental revision of the three Medical Devices Directives (Directives 90/385/EEC, 93/42/EEC and 98/79/EEC) and asked for the changes to be aimed particularly at increasing the safety of patients and the quality of medical devices available in the EU market.

European dentists are concerned about the potential dangers of outsourcing of manufacturing of medical devices, specifically of dental prostheses, often to low wage countries, and believe that appropriate safeguards should be introduced to ensure their safety and quality.

CED called for strengthening the requirements for provision of information to the patients and to the end users on the origin of medical devices.

The current rules allow importers to make minor adjustments to the medical devices produced outside of the EU, to declare themselves as manufacturers and to market the devices as being produced in the EU.

CED RESOLUTION:

CED position on the revision of the EU regulatory framework for medical devices

E-HEALTH WORKING GROUP

In response to the growing relevance of electronic information and communication technologies for healthcare and increasing number of e-Health initiatives initiated by the European Commission, CED members decided to establish a CED Working Group on e-Health.

The Working Group under the leadership of Dr. Piret Väli of Estonia will monitor EU political and legislative developments, formulate CED policy and facilitate the exchange of experiences connected to the use of e-Health solutions among European dentists.

For more information contact: Nina Brandelet-Bernot
Head of CED Brussels Office
Tel: +32 2 736 34 29
ced@eudental.eu
http://www.eudental.eu

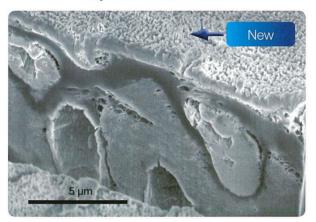
Sensodyne® Repair & Protect

Redefining the science of dentine hypersensitivity

Now there's a major advance to help you meet the challenge of dentine hypersensitivity. Announcing the arrival of Sensodyne Repair & Protect, a management option that moves with the times.

21st century dentistry looks to prevention For years, desensitising toothpastes have only treated dentine hypersensitivity. Now the debate is moving on: how can we go further than just treating the pain, to give patients continuous repair and substantive daily protection?

Formation of hydroxyapatite-like layer on dentine surface



I lydroxyapatite-like layer of 3–7µm after 5 days

In vitro cross-section Scanning Electron Microscope (SEM) image of hydroxyapatite-like layer formed by supersaturated NovaMin® solution in artificial saliva after 5 days (no brushing)¹

Sensodyne Repair & Protect: going beyond pain treatment in dentine hypersensitivity

Sensodyne has responded with the development of Sensodyne Repair & Protect. This new arrival brings you the unique potential of NovaMin®, advanced calcium phosphate technology in a daily fluoride toothpaste.

The difference is in the layer

NovaMin® is progressive science because it helps builds a reparative hydroxyapatite-like layer over exposed dentine and within the tubules.²⁻⁷

This layer formed by Sensodyne Repair & Protect starts to form from the first use, ^{2,3,6,8} and can withstand daily oral challenges such as toothbrushing and acidlic food and drinks. ^{2,5,6,9} In this way, it can help provide your patients with continual protection from the pain of dentine hypersensitivity with twice-daily brushing. ¹⁰⁻¹²

Welcome to the new science of Sensodyne Repair & Protect





Specialist in dentine hypersensitivity management

Management of Oro-facial Problems in Dental Practice

Michael Escudier Unit of Oral Medicine, King's College London Dental Institute

The Role of Dental Care **Professionals**

- Recognition of abnormal
- · Provisional diagnosis
- Decision on whether local or systemic
- Decision to treat, not treat or to refer
- Prescription of correct drugs / therapies
- · Assessment of response

Management Principles

- Establish diagnosis
- Eliminate local aggravating factors
- · Control infection
 - Topical antimicrobials
 - Systemic antimicrobials
- Control pain
- Promote healing
- Assess response to therapy
- Maintenance / Prevent recurrence

Areas

- Mucosal disease
 - Recurrent oral ulceration
- Salivary gland disease
- White patches
- Psychological

Recurrent Ulceration

- Recurrent Aphthous Ulcers
 - Minor ignore if not troublesome or treat
 - Major refer if don't respond to simple Rx
 - Herpetiform treat

Treatment

- Topical corticosteroids
 - 0.1% Triamcinolone in orobase
 - 2.5mg hydrocortisone sodium succinate
 - 0.5mg betamethasone mouthwash
- Inhalers
 - Fluticasone
- Topical antibiotics
 - Tetracycline

Gastrointestinal

Conditions:

- Crohn's disease
- Ulcerative Colitis
- Coeliac disease
- Primary or secondary presentation











Health & Beauty













Clinical Fresh **GEL**















Management of Oro-facial Problems in Dental Practice

Continues from page 7

Orofacial granulomatosis

A group of non-infectious, idiopathic disorders that are histologically associated with non-caseating epithelioid granulomas and multinucleated Langhan's type giant cells within the oral mucosa.

Management

- Dietary restriction:
- **Immunosuppression**
 - Prednisolone

 - Methotrexate
- Immunomodulation
 - Anti TNF-alpha

Herpes zoster

- Reactivation of varicella zoster virus
- Clinical features

 - preceeded by unilateral radicular pain and hyperaesthesia of overlying skin intense erythema which rapidly become vesicles which crust
 - oral, palatal or pharyngeal involvement if V affected

 - ocular involvement causes keratitis or uveitis which may result in blindness
 Ramsey-Hunt Syndrome pain in ear and throat followed by vesicles in eam, LMN paralysis of VII

Herpes zoster continued...

- Complications
 - post-herpetic neuralgia
 - neurological e.g. Meningitis
- - reduces pain / accelerates healing no effect on post-herpetic neuralgia

Herpes simplex

- Herpes simplex type 1 spread by infected saliva herpes simplex type 2 spread by sexual contact

Herpes simplex continued...

- - HSV-1 or HSV-2 herpetic whitlow primary infections
- Eye infections

 - usually HSV-1 corneal involvement is serious since it may cause blindness
- ❖ Genital/anal infections usually HSV-2

Herpes simplex continued...

- - encephalitis affects temporal lobes

 - due to transfer of HSV-2 during parturition

 - eczema herpeticum
- Treatment

Salivary disease

- - Obstructed

 - Lumpy Whole gland

Obstructed

Mucocoele

Extravasation

Retention

Obstructed Calculus Diagnosis: Plain films Sialography Ultrasound Management: depends on position Intra-oral surgery Basket retrieval Salivary lithotripsy

Basket retrieval

- Small mobile stone in the main duct.
- Sialographic evidence of duct patency to and beyond stone.

Lumpy gland Salivary Gland Lumps Multiple Glands Single Gland Systemic Diseases Whole Partial Involvement Involvement Obstruction/infection Tumour

Multiple glands

- Infectious disorders e.g. bacterial, viral
- Granulomatous inflammation e.g. sarcoidosis, TB
- Sialosis e.g. diabetes
- Others e.g. GVHD, HIV related

Ascending sialadenitis

- Predisposed
 - reduced flowr
 - Poor OH
 - Chronic sialadenitis
- Clinically
 - Painfull, reddened skin, fever, malaise, purulent
- Investigation
 - M C and S, blood culture

Ascending sialadenitis

Treatment:

Supportive – rehydration, analgesia Antibiotics

Mumps

- Commonest salivary gland disease
- Children and young adults
- Incubation of 2-3 weeks after direct contact
- Sudden onset: fever, swelling of one or both, peaking at 48 hours

Recurrent parotitis of childhood

- Unknown aetiology
- M>F
- Unilateral or bilateral
- Duct ostium reddened, pus from duct
- Gland enlarged between attacks

Mumps

- Supportive therapy resolves in 10 days
- Complications: orchitis, oophoritis, pancreatitis, hepatitis, encephalitis (rare)

Sialosis

- Swelling of glands for hormonal, endocrine or other systemic reason
- Sometimes painful

Sialosis

- Drugs
- Diabetes
- Hypothyroidism
- Pregnancy
- PCOD
- Alcohol abuse
- Cirrhosis
- Bulimia nervosa
- Malnutrition

Continues on the next page

MOUTHRINSE HYALURONIC ACID 0,025%



GINGIVAL GEL HYALURONIC ACID 0,2%

FOR HIGH QUALITY CARE OF YOUR MOUTH AND GUMS



TO ASSIST IN THE TREATMENT OF

GINGIVITIS
PERIODONTITIS
LICHEN PLANUS
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RECEDING GUMS
GENERAL ORAL MAINTENANCE



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Management of Oro-facial Problems in Dental Practice

Continues from previous page

Single gland

- Main concern is those cases with partial
- **TUMOUR**
 - Primary salivary neoplasm Secondary

Typical clinical features of salivary gland tumours

- Slow-growing
- · Soft or rubbery consistency
- 85% of parotid tumours
- Do not ulcerate
- No associated nerve signs

- May be fast-growing/painful
- 45% of minor gland tumours
- May ulcerate & invade bone

Primary Salivary tumours

Malignant tumour

Include adenoid cystic carcinoma and mucoepidermoid carcinoma

Classification of white patches

- Developmental

- Dermatological
- Metabolic

Traumatic

- Chemical tinctures

Tobacco

- Stomatitis nicotina
 - Typically hard palate
 - White homogeneous patch
 - with but punctate red spots
 - (orifices of minor salivary glands)
 - Look for prosthesis protected areas

Classification of Oral Candidosis

Candidal Leukoplakia Median Rhomboid Glossitis

ATROPHIC CANDIDOSIS

ATROPHIC CANDIDOSIS

MUCOCUTANEOUS CANDIDOSIS



A unique composition makes a difference





TePe Select Toothbrushes



Filaments with rounded ends for gentle cleaning



Select - Keeping it Simple

Select is a good value, quality toothbrush with a user-friendly handle, a tapered brush head for imporved access and end-rounded filaments for a gentle clean.

Select Compact with a smaller brush head is popular both among children and among adults who prefer a smaller brush. Suitable for those who are troubled by the gag reflex.



All TePe's toothbrushes can be angled for increased access. Heat the neck under hot running water, bend to desired angle, and cool in cold water.

- Tapered brush head
- Head available in Regular or Compact sizes
- User-friendly handle
- Available in Medium, Soft and X-Soft strengths



Print your message, clinic address, logo or anything else on Select and Select Compact toothbrushes! A wide range of handle colours and an advanced printing process offer numerous combinations.

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Management of Oro-facial Problems in Dental Practice

Continues from page 13

latrogenic

- Lichenoid reaction

 - Drugs

Miscellaneous

- Fordyce spots
- · Cholesterol deposits
- Benign migratory glossitis

Psychological illness

Psychosis:

POFP

"Not quite right"

Cancerophobia

Eating disorders:

NCTSL

Organic:

Dementia

Drug abuse:

Multiple

Psychosis

Schizophrenia/paranoid states

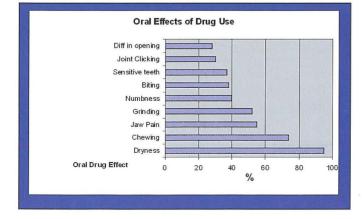
≽"Requests"

Drug abuse

- "Occupational drugs"
 - > Benzodiazepines
 - > Nitrous oxide
- Illicit drugs

CAGE Questionnaire

- Have you ever felt you should Cut down on your drinking?
- Have people Annoyed you by critiscising your drinking?
- Have you ever felt bad or Guilty about your drinking?
- · Have you ever had adrink first thing in the morning to steady your nerves or get rid of a hangover (Eye-opener)?





DENPLAN

MORE PROFITABLE PREVENTIVE PRACTICE

Denplan was officially launched to DAM members in May. Following is a summary of the presentation made by Dr Roger Matthews, Denplan's Chief Dental Officer.

To start with, what's Denplan all about? Denplan was started in the UK by two dental practitioners in 1986. They had a vision of dental practice in which the interests of the dentist and the patient were aligned: to help and encourage the provision of high quality preventive oral care through a regular, affordable payment.

Over the past quarter century, Denplan has helped thousands of dentists in the UK to achieve predictable and profitable practice.

How does Denplan actually work in practice?
The dentist is firstly helped to arrive at a fee system which covers the running cost of his or her practice.
This is individual to each dentist and the fees set are those decided by the dentist after this process is complete.

Each patient is assessed for their future risk of dental disease and the care and treatment needed to maintain their oral health.

The patient and dentist then sign a contract to deliver that objective, supported by monthly payments.

It's as simple as that: no claim forms to submit, no unexpected costs for the patient, and a guaranteed monthly income for the dentist.

Surely, it can't be that simple
– is all treatment covered?
The Denplan contract covers all routine treatment which a general practitioner would provide.

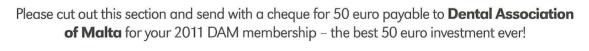
The few exceptions are clearly spelt out: cosmetic or "elective" treatment, laboratory fees (which are paid by the patient separately, giving them the choice of quality or appearance they desire), implants, referrals for specialist care, and prescription items.

Otherwise, the dentist is free to prescribe whatever treatment they feel is most appropriate for that patient. *So how does the payment system work?* Patients pay their agreed monthly fee direct to Atlas Healthcare.

Those fees are then passed to the dentist in the same month they are received. Atlas make a small administrative charge which includes a supplementary insurance for patients against dental trauma and for emergency treatment outside Malta, for instance when on holiday or business overseas.

Continues on page 18

PAYMENT FORM





TO:

The Treasurer, Dr Matthew Cachia, The Dental Association Of Malta, Federation Of Professional Associations, Sliema Road, Gzira.

NAME:		
ADDRESS:		





ADVANCED CLEAN

FIGHTS GERMS FOR 12 HOURS

Also helps prevent:

Plaque

Gingivitis

Tartar Build-up

Cavities

Bad Breath



DENPLAN

MORE PROFITABLE PREVENTIVE PRACTICE

Continues from page 16

The trauma insurance is important for the dentist as obviously this kind of kind of treatment is impossible to predict when carrying out the oral assessment and deciding on the fee structure.

The administrative charge is additional to the dentist's calculated hourly rate, so is paid by the patient, not out of the dentist's fees.

What else does Denplan offer?
Alongside the dentist-based plans,
Atlas will also be able to offer corporate
dental insurance for employees of
companies in Malta, allowing those
patients to afford dental treatment
from any dentist of their choice.

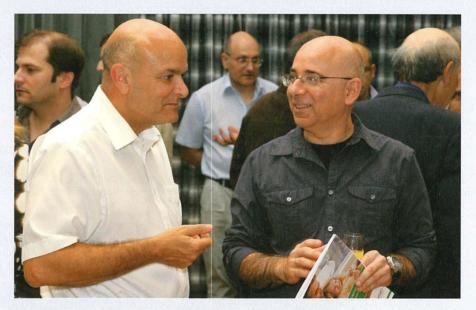
Denplan-trained consultants from Atlas Healthcare will be able to assist and advise dentists on practice matters, and Denplan member dentists will be listed on Atlas Healthcare's website, as well as having the Denplan products promoted through local media and advertising campaigns.

Atlas will be starting an educational advertising campaign to promote minimal intervention dentistry and the benefits of Denplan in the near future. Their website will also promote Denplan dentists.

In the UK, Denplan run professional training, risk management and social events for their 6.500 member dentists (who between them look after over 1.6 million Denplan patients). We look forward to extending and developing these services in the future for dentists in Malta.

How did you become involved with Denplan?

I spent over twenty years working in general practice in the UK, and also participated at local and national level in dental affairs and politics. After a period as a dento-legal advisor with an international indemnity organisation, I joined Denplan to develop and promote its professional services.





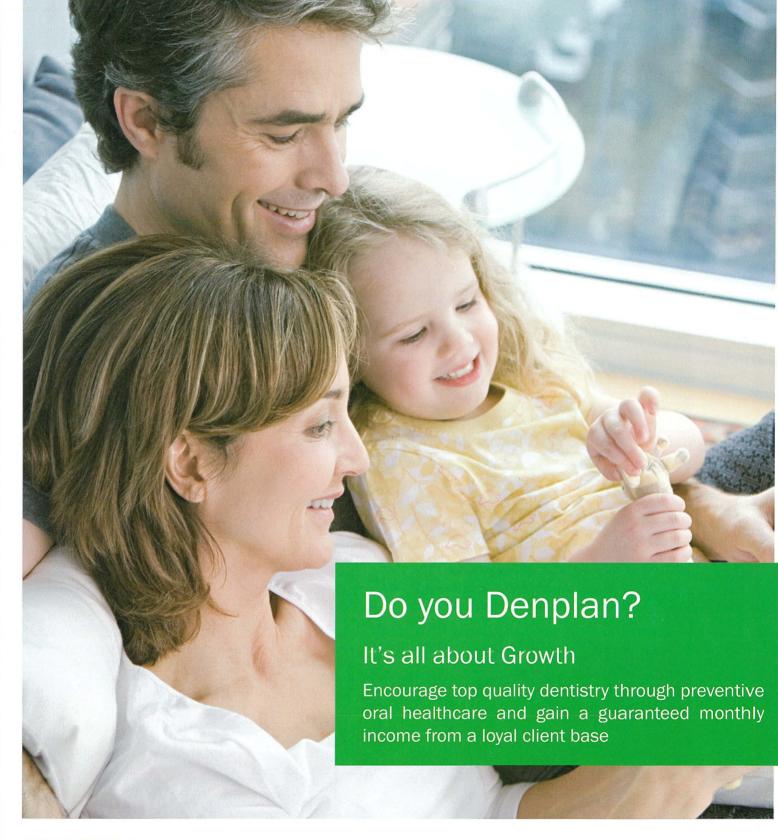
I believe passionately in high quality, preventive oral care. I particularly look forward to developing a culture of regular dental visiting, so that problems can be dealt with at an early stage, and good dental hygiene habits encouraged.

I know that dentists across the world tend to "undersell" their expert advice and guidance, and billing starts only when invasive or interventive treatment starts. We need to re-think this approach and to free dentists from the "drill and fill" mentality. Most importantly, we need to encourage this change in thinking from loyal patients and to look at building a more dentally healthy population.

And finally, why Malta?
Denplan is currently actively working with dentists in countries outside the UK to spread our unique, dentist-centred approach to oral healthcare.

Atlas Healthcare is a long-standing partner of our parent company, AXA PPP healthcare and we were enthusiastic and positive about working with them to develop a product which was specifically suited to the needs and future development of the profession here.

It's been a huge pleasure to work with Atlas and local dentists to get this important project off the ground!







21 322 600 denplan@atlas.com.mt

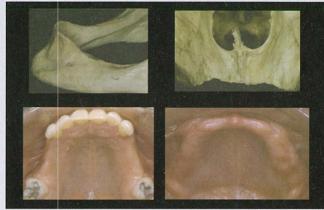
www.atlas.com.mt/denplan

MINIMALLY INVASI

Dr. Medic. Stom. H

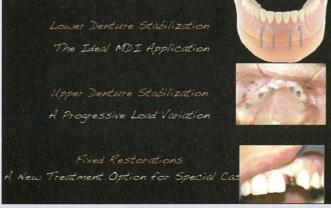
Associate Professor Univ. lasi • Private Practice, Baden Baden Germany • Speciality:Implantology, Pe DGÄZ Member • DGZMK Member • National and international lecturer on topics

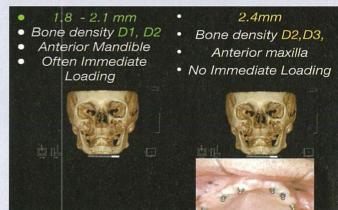


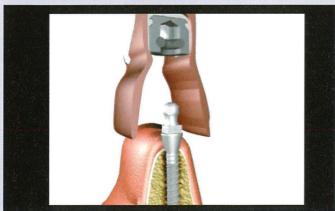












Tissue supported, implant retained!

Mini Dental Implants are not in direct

contact with denture

Mechanical load of denture is supported by soft tissue and jaw bone

Note: MDI's rely on mechanical anchoring through cortical bone contact and compression.

Osseo-integration occurs over time, but is not crucial for function

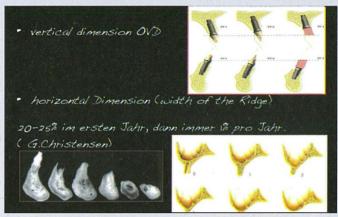
VEIMPLANTOLOGY

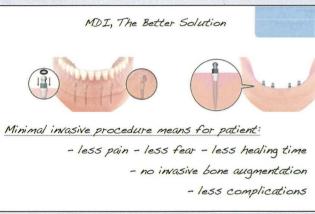
enriette Lerner (DDS)

eriodontology and Esthetic Dentistry • ICOI Diplomate • DGOI Expert • BDO Member • ASA Member

of :Esthetic dentistry ,Sinus elevation, Bone Grafting, Minimal Invasive • Implantology











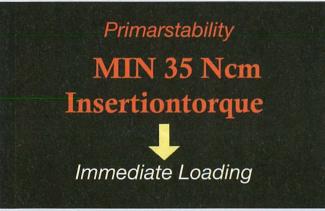
Shatkin TE, Shatkin S, Oppenheimer BD, Oppenheimer AJ., Compendium 2007
Mini dental implants for long-term fixed and removable prosthetics: A retrospective analysis of 2514 implants, placed in 531 patients over 5.5 years (mean 2.9 years)

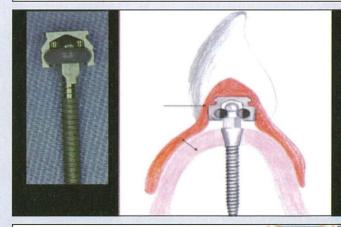
Survival rate	
95%	
83%	
93%	
92%	

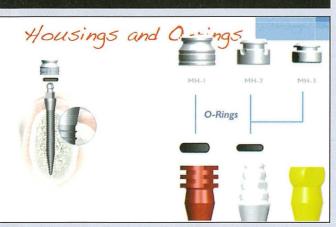
mean 94%

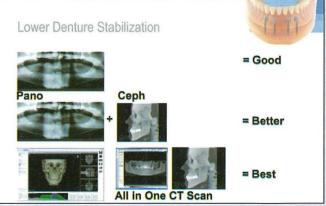
Conclusion: The (good) rate of survival attributed to the minimally invasive surgical approach with preservation of peri and endosteal blood supply.

The flapless surgical technique means less postoperative discomfort for the patient, shortening the convalescent period.







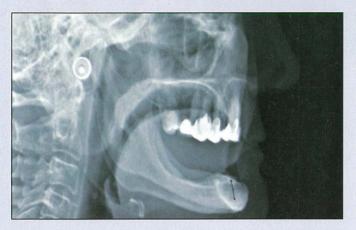


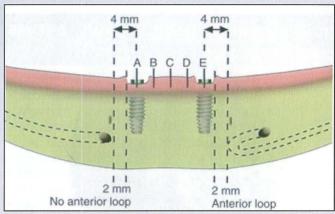
MINIMALLY INVASIVE IMPLANTOLOGY

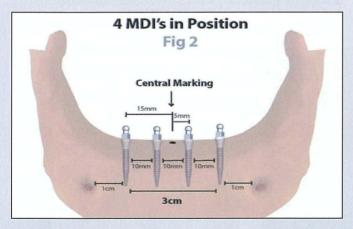
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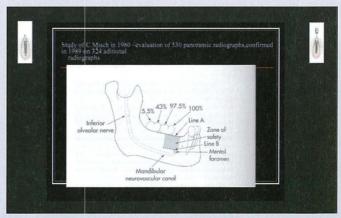








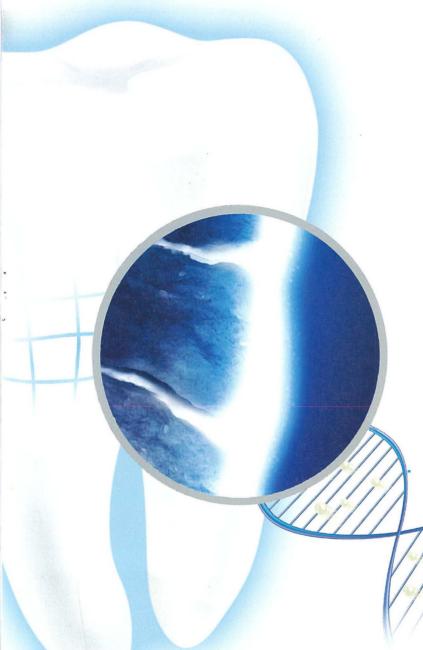












Redefining the science of dentine hypersensitivity

Now there's a major advance to help you meet the challenge of dentine hypersensitivity

Announcing the arrival of Sensodyne® Repair & Protect, which brings the unique potential of NovaMin® calcium phosphate technology to a daily fluoride toothpaste. NovaMin® builds a reparative hydroxyapatite-like layer over exposed dentine and within the tubules¹-5 to continually help protect your patients against the pain of dentine hypersensitivity⁶⁻⁸

Welcome to the new science of Sensodyne Repair & Protect

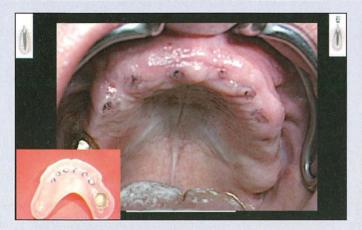


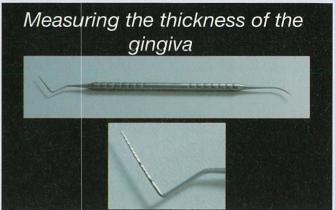


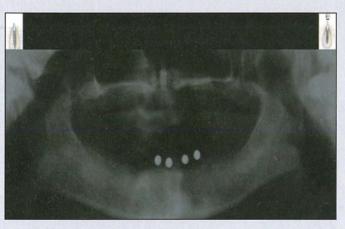
Specialist in dentine hypersensitivity management

MINIMALLY INVASIVE IMPLANTOLOGY

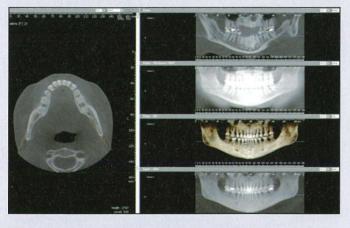
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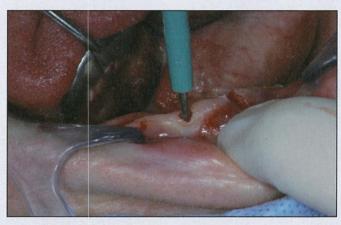
















BIOFILMS AND WOUNDS

Leonard Schembri S.N., R.N. (Aust.), B.Nsg. (Aust.), B.A., T.E.F.L., Phytotherapeutical Studies (Brazil)

A biofilm is a collection of microbial cells that are attached to a surface and embedded in a self-produced extrapolymeric substance. (Davis et. al. 2008). Bacterial biofilms cause or complicate numerous medical conditions, including chronic wounds. (Wolcott & Rhoads 2008). The biofilm has become a common occurrence in wounds and this poses a big challenge to all the Nurses and Doctors.

Unfortunately, many Health Professionals still do not know how to manage a biofilmed wound. There are different schools of thought of how and why a biofilm is formed. Be that as it may, this short article is not about the how and why. It is about different methods of "how to remove" the biofilm from wounds whether they'd be acute or chronic. All the information below is from the author's experience.

FIRST METHOD

A biofilm could easily be removed with sterile plastic forceps. The procedure itself is, many a time, painless. However, with certain types of wounds, for example, an arterial leg ulcer (below the knee), this simple procedure could be painful. The problem of pain could be overcome by either one of the following two methods explained below.

- a. The application of Emla Cream (a local anaesthetic) on top of and around the wound. Then the Health Practioner has to wait an hour for the cream to absorbed. Waiting for two hours is better.
- b. If the pain is excessive, in addition to the Emla Cream, the Nurse (or other Health Practioner), can apply Lignocaine 1% solution. The vial's transparent solution is placed onto two layers of gauze and then the wet gauze is applied over the wound and its immediate and surrounding healthy tissue. This is left in place for 2 minutes or slightly longer. Soon afterwards, the Nurse can start to remove the biofilm with a sterile scoop or the edge of a sharp blade.

SECOND METHOD

Another method which is liked by some Health Practioners is the application of Negative Therapy Pressure (NPT). This, we have found, could be applied over a stubborn biofilm where the Nurse finds it extremely difficult to remove.

After one or two applications of this therapy, the biofilm is removed. Unfortunately, the biofilm has the tendency of returning (recalcitrance) once the therapy is stopped. Thus it is important to apply a suitable dressing or to continue with the use of NPT to prevent the biofilm from reforming.

THIRD METHOD

Prontosan is a new solution for biofilms. This solution is first placed on a couple of sterile gauze swabs and then applied over the wound and left in situ for 15 minutes. This is meant to break up the biofilm or eat away, as it were, at the film and the bacteria underneath.

It ought to be mentioned at this stage, that the first method (mentioned above) is first carried out and is then followed by using this method.

To compliment the Prontosan solution, B. Braun has come up with Prontosan Gel. This gel is to prevent the formation of a further biofilm or to continue the action of breaking the biofilm, that is, killing the bacteria underneath.

Once the wound is free from the biofilm, the gel enhances granulating tissue. If, on the other hand, the biofilm is thick and stubborn and the Health Practioner can still see the biofilm present on the wound, then s/he can remove the biofilm with either a scoop or a sharp blade some 2 to 3 weeks after the application of the solution and gel.

The combination of these two products seems to dislodge the film from the surface of the wound bed.

FOURTH METHOD

A super-oxygenated environment is good for healthy tissue and bad for biofilms. (Wolcott 2008). Thus, hyperbaric oxygen is one method of combating biofilms. Even though this idea might be a good idea for diabetic ulcers with recurring biofilms, it has not as yet been accepted by our peers.

Nurses still need to promote "research marketing", so to speak, with surgical and medical staff; research marketing which is based on anecdotal research and further up the ladder of research.

FIFTH METHOD

The Cutimed Sorbact dressing - This dressing, which could be left in situ for up to one week, is applied over the biofilmed wound. However, the secondary dressing is changed regularly, that is, when there is too much discharge. The dressing captures the bacteria and inactivates their activity (sequestration).

It is an easy dressing to apply and does not require any special technique of application. It ought to be mentioned, that the first method (mentioned above) is first carried out and is then followed with the use of this dressing. It has been observed that this dressing is better used once there is no biofilm as it prevents the formation of the biofilm.

SIXTH METHOD

Another simple and straightforward method is to obtain a brand new sterile toothbrush. The Health Practitioner can clean the biofilmed wound with the toothbrush under running water.

S/he can refer to the guidelines of the first method, referred to above, if the patient is in pain or experiences pain during the procedure. This method is partially successful but it aids at removing the thickness of the biofilm.

Continues on the next page

Professional Indemnity Insurance for Dentists

Mediterranean Insurance Brokers (MIB) in conjunction with the Dental Association of Malta have put together a flexible and comprehensive insurance protection available at competitive premium rates providing Professional Indemnity Insurance for Dentists in Malta.

It is not every day that you read in the media that dentists face court action from patients who claim to have not received the appropriate treatment and, as a result, suffer disability opening the way for costly litigation and compensation...

Yet it may happen! Dentists who may have some other type of insurance cover, for instance Public Liability for their clinic, should be aware that this insurance policy does not cover them from potential claims patients may make for professional negligence.

With Professional Indemnity Insurance, dentists can put their minds at rest that they have a policy that will cover them for all sorts of day-to-day occurrences in the course of executing their profession.

These include implantology, oral surgery, entodontics and prosthetic surgery.

Considering the potential exposures involved, the premium, agreed by Mediterranean Insurance Brokers (MIB) in conjunction with the Dental Association of Malta, for Professional Indemnity Insurance can be as little as €450 annually.

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BIOFILMS AND WOUNDS

Continues from page 25

To check the efficacy of the procedure, it might be a good idea to do half of the wound at first and compare this with the rest of the wound. Either one of the methods referred to above can then be applied.

FUTURE WOUND DRESSINGS

Presently, it is common practice not to use any other anti biofilm agents. This is because there are no specific commercial wound dressings on the market for biofilms. However, there are potential anti biofilm agents which still need be explored and researched in the treatment for wound biofilms.

According to various authors, some of these chemical and natural agents are: Lactoferrin, Xylitol, Gallium, Dispersin B and Honey (Manuka)* (Percival et. al. 2010). In the author's opinion, there are no anti biofilm wound dressings; at least, not in Malta.

We hope to witness, in the future, some new form of wound dressing with these agents. This gives manufacturers the opportunity to explore and experiment with new products.

In the case of mouth biofilms, the author does not know whether there are any of the agents (mentioned above) which could be used against biofilms.

It would be interesting to find out what Dentists use when there is a biofilm in the mouth and the reason of using one agent over the other. The methods and the chemical/ natural agents used by Dentists could be adopted by Nurses and Doctors which might lead to a breakthrough in the treatment for wound biofilms.

* In some instances, Manuka Honey was used against MRSA in Mater Dei Hospital. This is not the case any longer as silver dressings have been introduced since then.

There is a Honey dressing on the market but it does not specify that it is Manuka Honey.

From the author's experience, a commercial wound dressing is a sterile manufactured product where the Health Professional user opens the dressing and lays it over the wound to help/assist the wound to heal in the shortest time possible.

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Non Stinging

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FROM MOUTH ULCERS

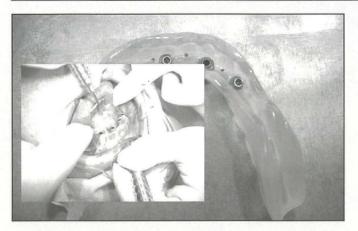
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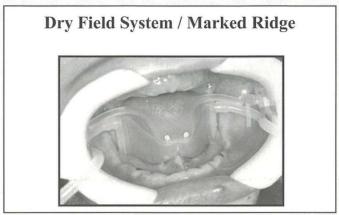


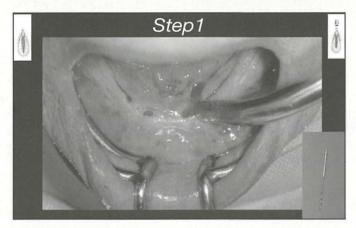
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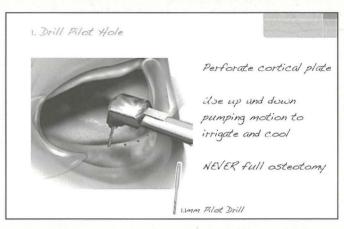
MINIMALLY INVASIVE IMPLANTOLOGY

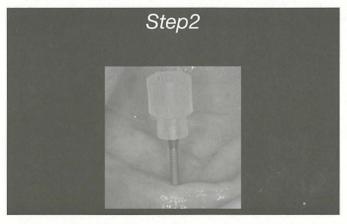
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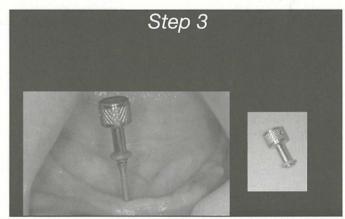


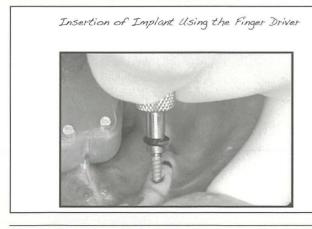


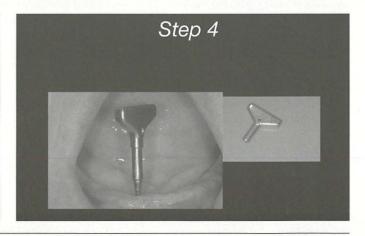












ENDODONTIC LAGNIAPPE

THE DAM DR DAN KEIR LECTURE

Summarized by Dr David Muscat

PART ONE - CALCIFIED CANALS

To locate calcified canals one has to follow the laws on pulp chamber anatomy. According to Krasner and Rankow. JOE Vol.1 No.30 Jan 2004 they are the following;

Law of Centrality: floor of pulp chamber is always located in the center of the tooth at the level of the CEI.

Law of Concentricity: walls pulp chamber concentric to external surface of the tooth at level of CEI.

Law of The CEJ: the most consistent repeatable landmark for locating position of pulp chamber floor.

Law Of Colour Change: pulp always darker. Development fusion lines are darker than the floor colour. Reparative dentine or calcifications are lighter than the pulp chamber floor –they often obscure it and the orifices.

Law of symmetry 1: orifices of the canals are equidistant from a line drawn in a mesial to distal direction through the pulp chamber floor. Exception is maxillary molars.

Law of symmetry 2: orifices of canals lie on a line perpendicular to a line drawn in a mesial to distal direction across the centre of the pulp chamber floor. Exception is maxillary molars.

Law of orifice location 1: the orifices are always located at the junction of the wall and floor.

Law of orifice location 2: orifices are located at the angles in the floor wall junction.

Law of orifice location 3: orifices are located at terminus of the root developmental fusion lines.

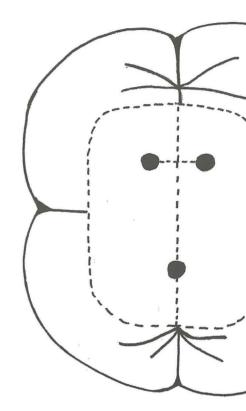
If one follows the pulpal road map, one first finds one canal and follow the fusion lines. Think of the pulp chamber as a 'box'. In maxillary teeth, first find the palatal-easiest. Then the MB. Remove calcifications, and they will lead to the others.

In astudy by Giles, the second MB canal is 1mm shorter than MB1. The MB2 is approached in a mesial fashion ,from distal to mesial and one may need to use a long diamond to properly access it. The MB2 is a problem to find and instrument. It is usually always present. It has abrupt curves, has more calcifications and difficult to work.

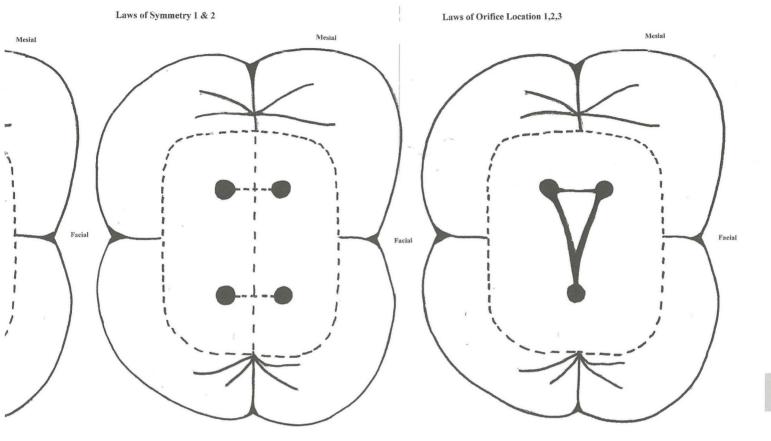
TIPS TO LOCATE AND NEGOTIATE CALCIFIED CANALS

- Rubber dam isolation
- Adequate access
- Sharp DGIG explorer. One can use a sapphire nail file to sharpen this so that it 'sticks' into calcifications.
- Sterilisation blunts the tips.
- Copious irrigation 2.5-5.25% NaOCL
- USE SIZE 8 FILES FOR
 NEGOTIATION.CONSTANTLY
 CHECK FILE INTEGRITY.
- Chelating agents
- Advance instruments slowly
- When in doubt take a radiograph.
- Let NaOCl sit for 2 minutes.
 This breaks up organic debris.
 Canals will, have bubbles coming out of them. Use loops.
- Use a size 8 file and twiddle like a winding watch-this will 'bite' into the canal.

Laws of Symmetry 1 & 2



- Chelating R Prep EDTA to soften the calcifications.
- MTA IS USED TO SEAL
 PERFORATIONS. The first thing
 to do is to use Ca(OH)2 so that
 the sodium hypochlorite does not
 hit the area. It also tells you not to
 go there. Then use MTA over the
 perforation once finished. Then flow
 a light cured composite over it.
- Transillumination –use curing light.
 See a dark area if there is a calcified canal. Use dimple shaped slow speed bur-a surgical length bur-latch type.
- Dyes-caries indicator. The dye will concentrate over the canals.eg. methylene Blue, '2 dye 4'.brush away dentine.
- Ultrasonics.-use an old scaling tip on low setting, and chip off calcifications with NaOCl in the canals.when working in calcified canals work sizes 8 and 10. Most calcifications are over the coronal area. Think of a pipe filled with gravel. Use small navigational strokes. Stabilise your hand with finger of other hand as you work.



- One can leave 'Glyde' in the canals till next visit.
- After size 10 you should use the
 Dentsply Pro-series 29 k Type files.
 These have a smaller flare than the
 size 20. There is to much of a jump
 between size 15 and 20 normal K flex
 files.
 It is difficult to remove
 a broken instrument as NiTi files tend
 to straighten and 'pretzel' in the canal.

PART TWO – HOW TO NEGOTIATE VERY CURVED CANALS

Straight line access-get rid of first curve. Use 15,20,25,30 NiTi which is flexible(as it is more flexible than dentine)(stainless steel will break as is not flexible).

Use crown-down instrumentation. 8,10 etc. Limited and judicious use of rotary instruments. 'Bounce' down the canal.

Do not push as it will bind. Access is always a continuous process. You can also use rotary instruments by hand as otherwise there may be too much rotation and torque.

PART THREE-DIAGNOSIS OF PERIO-ENDO LESIONS

Diagnosis
Oral exam
Pulp testing
Perio probing
Radiographs

PRIMARY ENDODONTIC WITH SECONDARY PERIO INVOLVEMENT

Long standing suppurating endodontic disease leading to perio breakdown through the gingival sulcus.

OR perforation, posts, resorption and fractures can cause perio breakdown.

PRIMARY PERIO WITH SECONDARY ENDO INVOLVEMENT

Apical progression of a perio pocket until the apical tissues are involved.

Pulp may become necrotic as a result of infection via lateral canals or apical foramen Rx perio lesion may lead to a secondary endo infection.

LATERAL CANALS

in a study it was found that most tissue in the lateral canal from the perio side only penetrated to half way through.

TRUE COMBINED LESION

The disease processes exist independently in both tissues. If the coronal seal is perfect the root canal can be left empty. Endo only fails if it leaks coronally due to a failed filling.

The mesial roots of a lower first molar will fracture after 5 years so a hemisection here only lasts that time.

There is no point in giving antibiotics if there is an asymptomatic abscess you are about to root treat – there will be no difference in the end result.

REFERENCES

- 1. 'Laws Of The Pulp Chamber Floor' By Krasner and Rankow.
- 2. 'Anatomy Of The Pulp Chamber Floor' Journal Endodontics Vol. 30 no 1 January 2004.

THE ITI EDUCATION \

BY PROFESSORS WEINGART AND WEBER

Arranged by Bart Enterprises and attended by Drs David Muscat, Mario Camilleri and Kenneth Spiteri. March 28-31 St. Katherine's Hospital. A TAF Course ETC approved, EU funded Salient points by Dr David Muscat

BIPHOSPONATES

Biphosponates bind to hydroxyapatite in bone and the osteoclast action is slowed or blocked. There is much less remodeling. If there is no resorption, there is no new bone and then you will get necrosis. BRONJ (Biphosphonate related ONJ). Biphosphonates have a half life of 10 years.

The worst are: Patency
ZOLEDRONATE 10,000 (iv)
I'ANDRONATE 1500 (IV)
ELIDRONATE 1
TILUDRONATE 50

IV Biphosphonate BRONJ rate is 0.8-12% Oral associated BRONJ rate is 0.7/100,000 per year. The mandible and maxilla have a high remodeling rate, and the mandible's rate is 10 times faster than the tibia.

The mandible is chronically exposed to inflammation and is frequently exposed surgically. The ratio of involvement mandible:maxilla is 2:1. IV Biphosphonate is absolute contraindication to implants.

ORAL BP-RULE

It is best to wait for no oral medication for 3 years and concomitant steroids. Get a drug holiday. But at least 3 months before stop biphosphonates and do not start again until you have intraosseous healing. (wait 3 months after). Avoid the oncology patient exposed to biphosphonate medication.

INCISIONS

Blood flows in the oral cavity in blood vessels from back to front so do not cut distal flaps. Also the blood vessels are palatal to the ridge in palate so do not cut flap palatally as you may cut artery. (information gleaned from experiments on dogs). In the upper take the papilla as a guide cut midline and either side of midline.

The nerve is the limiting anatomical structure. Care with round bur as there is a danger of 'it running away.' In the edentulous patient, due to scar tissue one often has to use force to remove tissue remnants from the bone during sharp dissection. For a better overview, use sutures on the flap with artery forceps to retract flap and leave forceps dangling on side or assistant retracts.

ANTIBIOTICS

Pre op antibiotics 875 mg penicillin twice daily for 5 days and start on the morning of surgery.

THE GSK SENSODYNE LECTURE AT THE HILTON

BY DR GARY FLEMING

Chaired by Professor George Camilleri. Summarized by Dr David Muscat.

.NOVAMIN is the new secret calcium phosphate technology ingredient in the new Sensodyne REPAIR AND PROTECT Toothpaste.

Novamin decreases sensitivity in patients with abrasion by actually building a reparative layer over dentinal tubules. This is done by elevating the salivary PH and this encourages by droxyapatite.

formation. This layer also binds to the dentinal collagen.

The reaction is exothermic so the patient will experience 'a hot feeling in the mouth- an inner warmth! Use at least 2cm of paste each time.

The repaired dentine is in fact 60% harder than normal dentine and it only takes 5 days to build up in

patients brushing twice daily. This layer will be resistant to dietary acids.

5% Novamin works in cohorts with 1450 ppm fluoride in the mouth.

As soon as Novamin hits saliva it releases calcium and phosphate ions which promote the reparative layer. Novamin is also used in bone regeneration.

NEEK IN STUTTGART

PREPARATION

Check intermaxillary relations. Palpate bone. Plan around 12mm height. The first prep will guide the others. Use slow speed, good cooling and do not overheat. Use a 3.5 mm drill. Use this for the orientation of the others. Hold the drill with your thumb. Use the middle finger on the chin.

The mandible is usually 25 mm but in old patients there may be 10mm vertical height. During manual insertion of the implant, also cool it with saline. In the edentulous patient the standard is an SLA 2.8mm polished neck.

SUTURES

Use vicryl (Ethicon)

USE OF LARGE CLOSURE SCREWS

These have an undercut so there is better healing as the soft tissues sit underneath.

BONE COLLECTION

Always have 2 suction devices so as not to mix saliva with the bone collected. The round bur can also be used to remove any soft tissue remnants.

IMPLANT TYPES

In edentulous cases one uses standard soft tissue level implants in routine cases.

If there is a high lip line. Maybe bone level implants where aesthetics important.

The undercut in the maxilla determines the drill angulation. One may have to compensate with the superstructure.

In the maxilla one may have a parallelism problem as one has to respect the undercuts and the shape of the alveolar ridge.

Stuttgart exudes excellence at every corner and it is no surprise that it is home to the museums of Porsche and Mercedes as well as the HQ of Bosch.

The town that invented the car and the motorcycle, Stuttgart is situated in a beautiful wine producing region close to the Black forest and Ludwigsberg, with its vast palaces and grounds.

In Germany all the ambulances have 'Malteser' as their insigna – we are still known for our Knights Of St John hospitalier services till this present day.



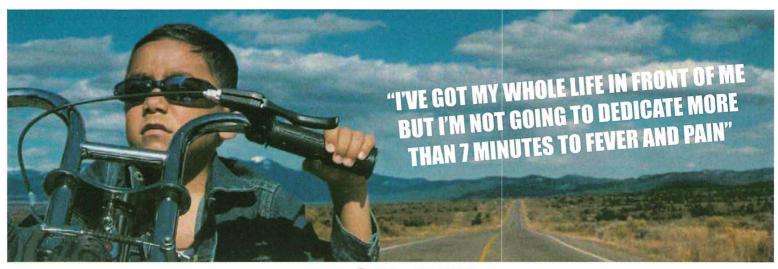
Doctors Kenneth Spiteri, David Museat and Mario Camilleri together with Professor Weber (centre) and Doctor Schwab (centre right) at the ITI workshop in Stuttgart



Professor Weber, Dr Muscat and Professor Weingart



Doctors Kenneth Spiteri, David Muscat, Mario Camilleri and Dr Hussein about to perform a hands-on at St Katherine's hospital Maxillofacial unit in Germany



ALGIDRIN

ADULTS AND PAEDIATRIC

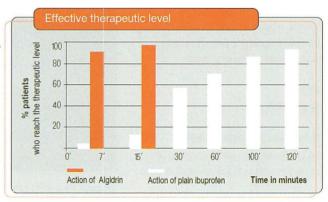
Ibuprofen Lysinate in single dose sachets

Less time to alleviate the pain

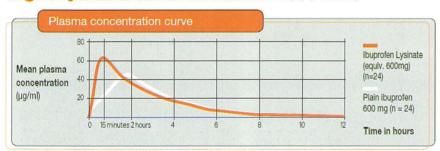
Algidrin ibuprofen lysinate reaches plasma levels faster than plain ibuprofen:

- Effective in 92% of patients at 7 minutes.(1)
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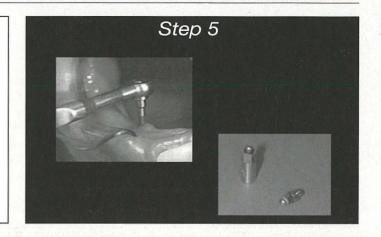
(1) Portolés A, Vargas E, García M, Terleira A, Rovira M, Caturla MC, Moreno A. Comparative Single-Dose Bioavailability Study of Two Oral Formulations of Ibuprofen in Healthy Volunteers. Clin Drug Invest 2001; 21 (5): 383-389.

MINIMALLY INVASIVE IMPLANTOLOGY

Continues from page 29

Winged Thumb Wrench Continues Insertion





When the ratchet wrench is necessary, the bone is very dense. Thermal trauma created by friction will damage bone and could fracture implant

Implant is auto-advancing

Carefully avoid lateral forces, which can cause fracture even with torque levels in a safe range



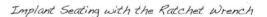
Set torque to recommended 45 Ncm
Taking 7 seconds per 1/4 turn and wait 5 to 10
seconds
between turns for bone displacement
Use thumb or forefinger of apposite hand to apply
downward
pressure on the wrench head to limit lateral
forces

Set torque to recommended 45 Ncm
Taking 7 Seconds per 1/4 turn and wait 5 to 10
Seconds

between turns for bone displacement
Use thumb or forefinger of opposite hand to apply

pressure on the wrench head to limit lateral forces

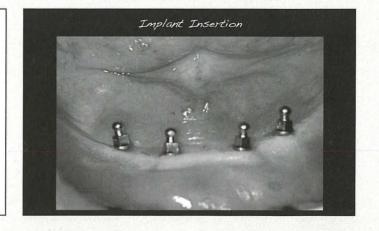






First Implant Fully Seated





Pen pictures of 19th century dentists in Malta

Italian and Sicilian Dentists 1860-70

By George. E. Camilleri

The troubled history in of the Kingdom of the Two Sicilies the 19th century reflected on Maltese political and social life, where the British Government had established and asserted its colonial hold on the island.

The changing circumstances in the Sicilian drama contributed to the number and type of refugees and emigrants coming to Malta, a few permanently. I know of about 20 persons who described themselves as dentists, or bassi chirurgi (barber surgeons) who came to Malta for varying periods during this century. There were also a number of phlebotomists, many of whom carried out dentistry who are not included in this study.

In this article I shall review the four individuals who came in the 1860-1870 decade, when the Bourbons were finally expelled from Sicily and the Kingdom of Italy under the House of Savoy was set up. I have

little personal data on these persons and do not know that the reason for their coming to Malta was political.

Giuseppe Busca and his family arrived in Malta on 18th December 1864 on the "Arico" Within two weeks he had petitioned unsuccessfully for a warrant to practise as a surgeon dentist and for permission to sell his composition against toothache and for preserving and cleaning of teeth.

Continues on the next page

THE DAM VOCO PRESENTATION AT AGAPE IN RABAT

By Mr John Fanning. Organised by Page Technology

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GRANDIO SO VOCO is a new nano-hybrid composite for all cavity types. It is one of the most tooth-like restoratives thanks to its physical parameters. The Grandio So has an intelligent shade system with new shades A3.25 AND A5.It is compatible with all types of bonding and has a smooth, non sticky, sculptable consistency. This brings out the Antonio Sciortino in us. It can be used for both anterior and posterior restoratives.

The Grandio So is a composite that behaves like a natural tooth due to its strength, elastic behaviour, thermal behavior, high filler content, low modulus of elasticity, less shrinkage and shrinkage stress. It has a good surface hardness and low thermal shrinkage. There is a high abrasion resistance, less surface roughness, good polishability and a long lasting gloss. The Grandio So has perfected nanohybrid technology with a new initiator inhibitor system. Grandio So has good marginal integrity and less creep (inelastic

deformation) and better recovery from viscoelastic creep. Thus Grandio So suffers from less fractures and less chipping and is more long term dimensionally stable. It has negligible solubility so there is less discoloration and volumetric expansion due to low water uptake.

THE GRANDIO SO FLOW is available in a new non dripping syringe. it is medium viscous with outstanding flow behavior with complete wetting of cavity walls.

THE ARABESK TOP AND FLOW have very good aesthetics due to a chameleon effect.

THE VOCO IONOFIL MOLAR AC QUICK has a 2.5 minute setting time making it ideal for children and nervous patients. It gives off fluoride and is immediately packable providing stable fillings with good marginal integrity.

CIMARA ZIRCON is a zircon oxide repair material with light curing composite. It is used to repair defects on ceramic restorations and zircon oxide frames with composite. It is highly aesthetic, inexpensive and used without acid. It is used with light curing nanohybrid composite Grandio So.

THE CARIES MARKER

This is a colored solution containing acid red for caries disclosure. It simplifies cavity preparation as it gives a precise distinction between carious and healthy dentine. It supports a minimal invasive technique. It only marks infected dentine which can be gently excavated. It is also useful in finding obliterated root canals and microcracks in fillings and margins.

THE PROFLUORID VARNISH

This is a varnish for testing hypersensitivity such as dentinal tubules on the necks of teeth or after cavity preparation. This varnish is excellent when used to treat sensitive areas prior to tooth whitening. It is imperative that the patient does not eat or drink for2- 3 hours after the fluoride varnish application. The varnish contains 5% sodium fluoride (22,600ppm fluoride).

The F ion, together with the calcium ions accumulated in the tubules, causes a precipitation of calcium fluoride effectively sealing the tubules. The calcium fluoride protects the tooth from acid, promotes remineralisation and helps in the long term formation of fluoroapatite. The varnish also sticks to wet surfaces. Also tooth shaded with a choice of flavours e.g. mint, lemon etc

He then dropped his request to practise dentistry and petitioned again "to sell an Odontalgic and to go about the country and under the bastions of Porta Reale, Valletta in a carriage for the purpose". This was granted provided the carriage was not stationary, presumably not to establish a kiosk, and outside Valletta.

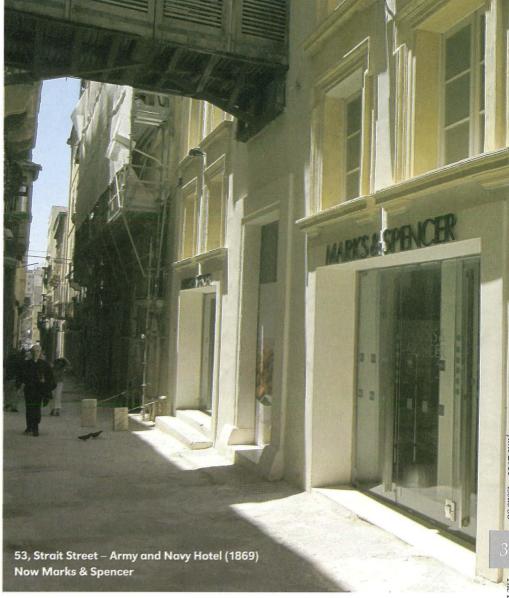
Four years later, in September 1868, Josh (Joseph) Clement Arbib petitioned to practise as a dental surgeon. His petition, in French, stated that he had graduated as a Medicin Dentiste from the Faculte de Medicine de Naples.

I Iowever he withdrew his application as he was about to leave the island and his enclosures were returned to him and, unfortunately, we have no more details of him. His name however clearly indicates his Jewish origins. There was a large colony of Arbibs in Tripoli and some actually settled in Malta. An Arbib was buried in the Jewish cemetery at Ta' Braxia in 1890. There were a number of Jewish dentists petitioning for temporary registration in Malta at the time.

It is interesting to note how often the University of Naples is cited as a place for training or certification in Dentistry which features carried on to the 20th century. At the same time in 1868, the SS "Firenze" from Siracusa landed Salvatore Impellizieri in Malta. He must have found Malta congenial as two years later, on the "Scilla", he was back with all his family. He was not the usual transitory person but remained in Malta for at least another 20 years.

In 1878, some ten years after his first visit, he petitioned for a licence to exercise as a dentist mentioning that he had exercised the profession in Sicily and now ran a barber's shop at Strada Nuova 71, Cospicua. The Medical Board noted that he had no supporting certificates and during the examination was found to have no theoretical or practical knowledge of dentistry and his request was not granted.

He waited for 4 years and in 1882 petitioned again for a warrant to extract teeth (cavadenti), which



seems to have been a common practise for barbers. Salvatore was persistent if nothing else but further petitions with minor deviations in approach were all denied. In 1884 he was informed that the law did not contemplate a licence for "cavadenti". In his next and final petition he changed tack and requested a warrant for "basso-chirurgo" or phlebotomist again unsuccessfully.

Noteworthy is the overlap between the various approaches to practise dentistry. It was in 1874 that the term "dental surgeon" was first used in the laws regulating medical matters. His long stay in Malta suggests that his family was established here and the surname, which is a common Sicilian surname, crops up again in the early 20th century but seems to have died out in Malta.

The last dentist arrived in 1869. Professore Alessandro Accorsi came on the "Leone" from Syracuse and gave his occupation in the ship's manifesto as "venditore". The day

following his arrival he had sent his petition from the Army and Navy Hotel, 53 Strada Stretta, Valletta (now Marks & Spencer) where he pointed out that he was an authorised dental surgeon from several Universities in Italy and France, and whilst waiting to continue his journey he wished to exercise his profession and sell a newly discovered "odontologic powder" which cures any dental malady.

The Medical Board must have sent his powder for analysis as their report asserted that "the odontolgic powder he wishes to sell, owing to its acid and stringent taste and the great deal of alum it contains, spoils, in our opinion the enamel of the teeth and irritates the gum'. He, not surprisingly, got a negative reply.

Errata corrige: In the article on Antoine Isouard and Charles Casolani (Probe March 2011 Issue37) Casolani's memorandum on Education in Malta was submitted to the Keenan Commission of 1878 and not the Austin and Lewes Commission of 1836.

The Dental Prob

TEMPOROMANDIBULAR DYSFUNCTION

Dr Charles Corney, MBBS, DMRD, FRCR

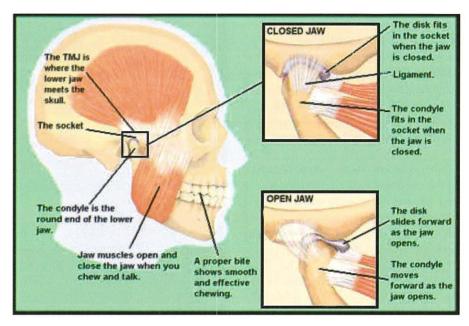
Temporomandibular dysfunction, TMD, is a multicausal syndrome commonly seen by both dental and medical practitioners, including radiologists.

The shape of the mandible is reminiscent of a bucket handle which is attached by rather loosely fitting temporomandibular joints, TMJs, to the skull. Although the TMJs are of the hinge variety, some side to side and some tilting movements are possible-most marked in camels. There is a crescent of articular cartilage on the ends of the bones around the joint margin separated by a small shock absorbing disc. Ligaments hold the TMJs together. There are also muscles attached around the TMJs. When the patient is in the erect position, the mandible is held in a 'dangling' position by muscles attached to the handle of the mandible.

TMD CLINICAL FEATURES

The most common feature is pain around the TMJ. Opening the mouth produces popping in the ears and aggravation of the pain with discomfort on chewing. Sometimes the patient complains that the jaws either lock or dislocate. In fact, dislocation of the joint is not a common feature of TMD.

Often swelling, pain and spasm are present in the adjacent temporalis muscles [producing headaches] and masseter muscles [producing dentallike pain], and also in the facial muscles [producing face pain]. Frequently there is additional pain in the neck and shoulder muscles, usually indicating a psychogenic stress origin [the commonest cause] of TMD, but a violent deceleration injury of the cervical whiplash type can also affect the muscles 'dangling' the handle of the mandible causing similar symptoms. An oral examination is usually normal except where there is a history of bruxism [grinding teeth due to stress] causing considerable shortening and irregularity of the teeth. The latter leads to an asymmetrical positioning of the mandibular teeth against those of the



maxilla. with consequent tilting of the mandible at the TMJs and unequal pull [causing spasm] of the adjacent muscles.

A previous fracture of the mandible which has healed with some deformity is another cause of this unequal muscle pull and spasm.

ASSOCIATIONS

TMD is more common in patients with a history of fibromyalgia, chronic fatigue syndrome, sleep apnoea and rheumatoid arthritis.

INVESTIGATIONS

Investigations may not be necessary if stress is the likely cause of TMD. However, if there is dental irregularity and asymmetry of the bite, Xrays [localised dental, mandibular, and orthopantomographic] are helpful in assessing the extent of the dental asymmetry which decides the choice of corrective treatment. Open and closed localised TMJ views are useful to demonstrate joint margin irregularities such as the erosions of rheumatoid arthritis, or undue joint separation suggesting subluxation or dislocation causing TMD. MRI is useful to demonstrate dislocation of the articular disc as another cause of TMD.

OTHER CAUSES OF FACE AND JAW PAIN

Sinusitis [usually with nasal congestion], trigeminal neuralgia [usually intermittent stabbing pains], impacted wisdom teeth and dental caries have to be ruled out.

TREATMENT

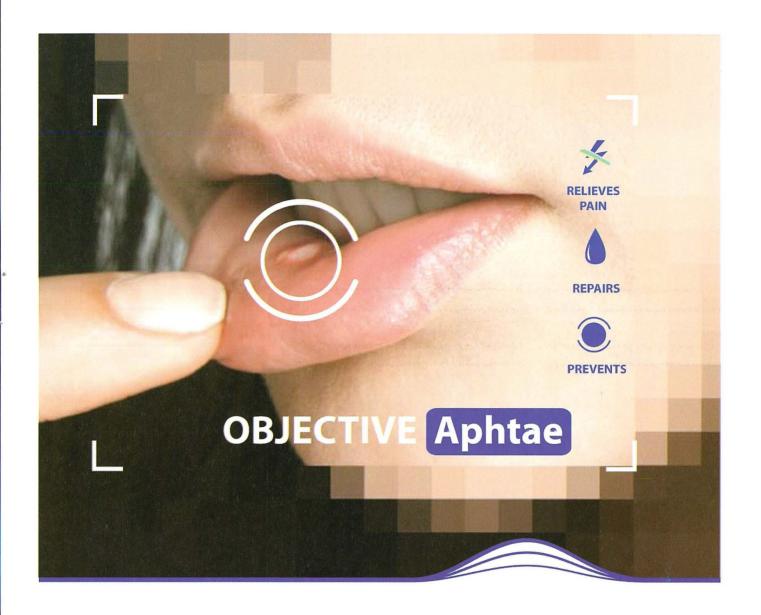
Treatment generally is of pain avoidance. This includes eating soft foods, avoiding over opening of the mouth whilst yawning, taking painkillers including amitryptyline, muscle relaxants and using injections of botox as a muscle relaxant.

Addressing stress is important. Use of a dental gum shield at night helps to reduce the pain particularly if bruxism is present. Improving the symmetry of the bite by building up shortened teeth can be helpful.

Only very occasionally is surgery required, such as a corticosteroid injection after irrigation of the TMJs, or replacement of a damaged articular disc, but successful relief of the pain does not always occur.

IN CONCLUSION

The patient suffering TMD usually has normal TMJs with a relatively speedy resolution of symptoms.





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