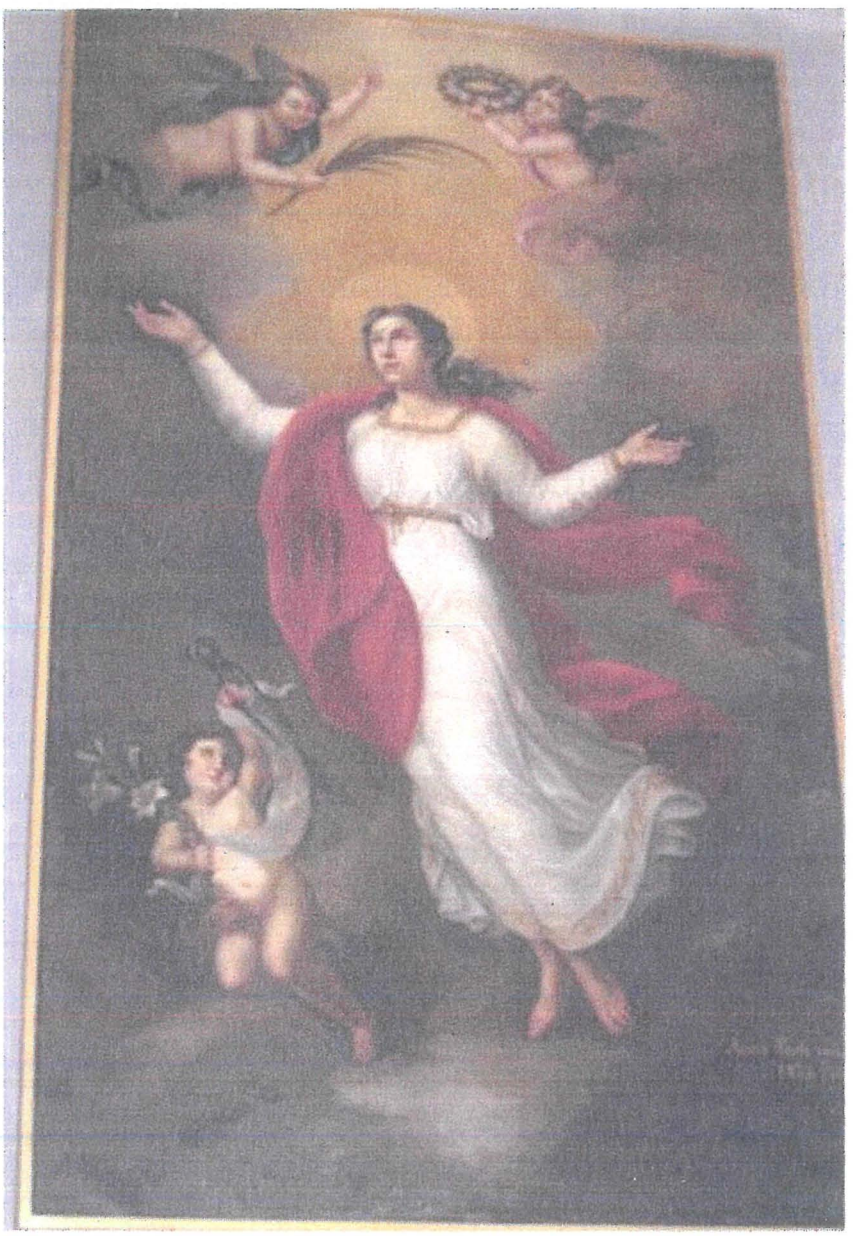
THE DENTAL PROBE

A NEWSLETTER BY THE DENTAL ASSOCIATION OF MALTA FOR THE DENTAL PROFESSION

Issue No. 25 *December 2007*



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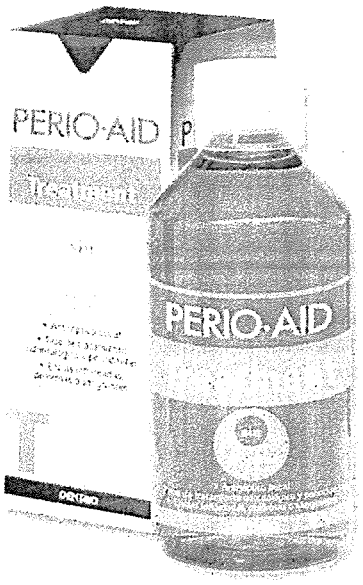
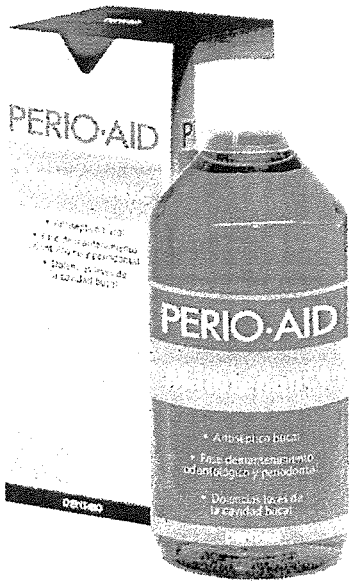


Perio-Aid Treatment Mouthwash
Disinfection in dental interventions and in periodontal treatment

composition:

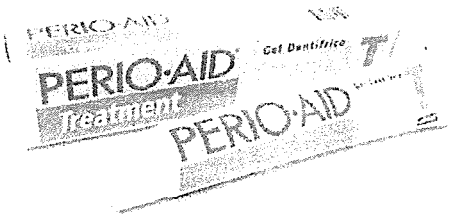
Chlorhexidine digluconate	0,12g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g



Perio-Aid Maintenance Mouthwash
Antiseptic for daily use. Can be used after treatment phase or as a substitute for oral hygiene when normal brushing is not possible

composition:

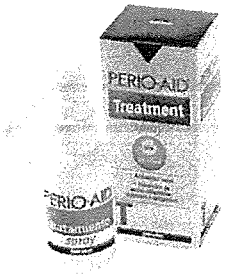
Chlorhexidine digluconate	0,05g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g



Perio-Aid Treatment Gel-Toothpaste
For patients with orthodontic appliances or implants, for periodontal maintenance and for patients at high risk for caries.

composition:

Chlorhexidine digluconate	0,12g
Excipient q.s.	100g



Perio-Aid Treatment Spray
Disinfection in hard-to-reach areas (tonsils, tongue dorsum) or in patients with special needs.

composition:

Chlorhexidine digluconate	0,12g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g

DENTAID
Experts in Oral Health
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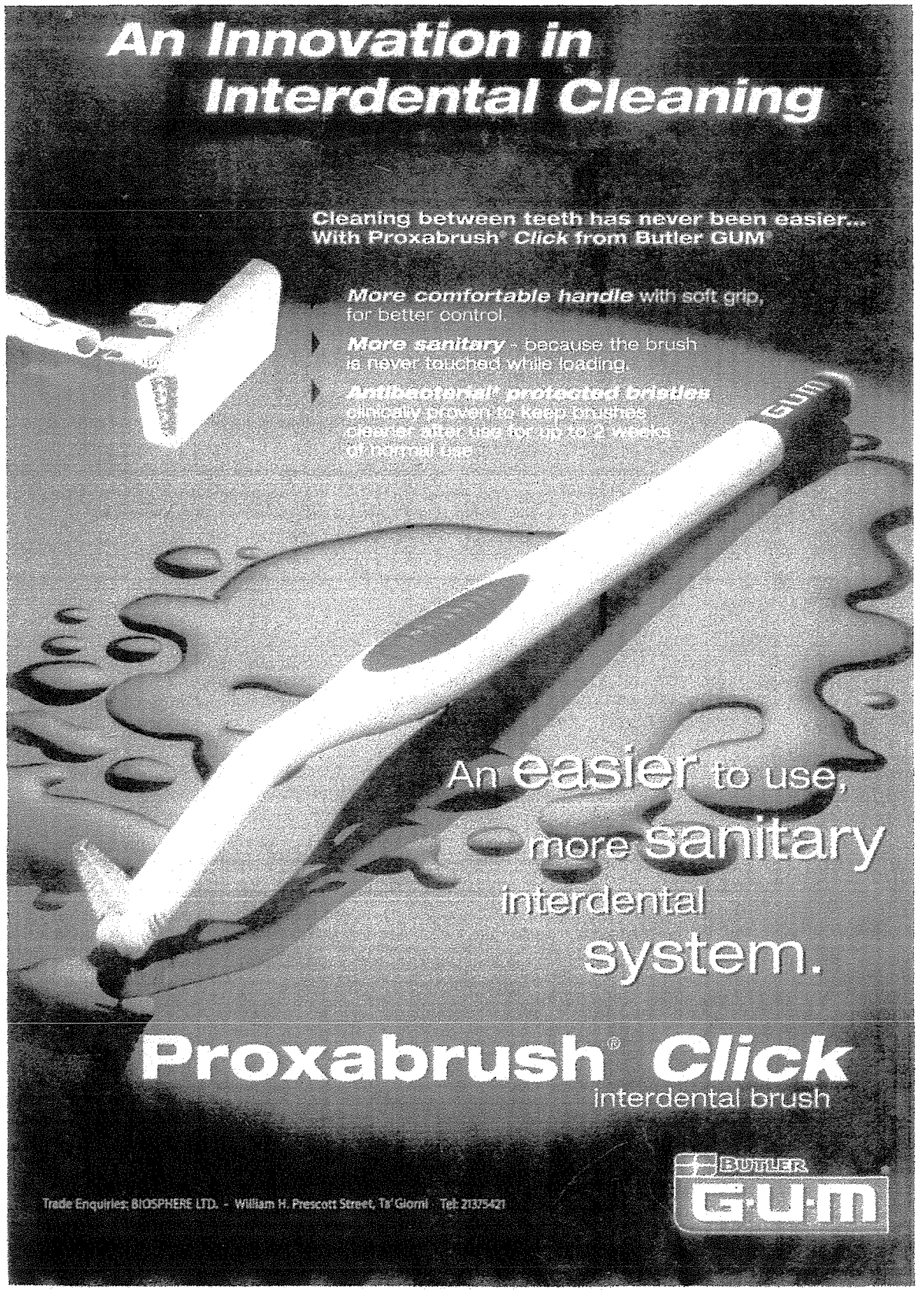
PERIO-AID
The clinically proven oral antiseptic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Cleaning between teeth has never been easier...
With Proxabrush® Click from Butler GUM
More comfortable handle with soft grip, for better control.
More sanitary - because the brush is never touched while loading.
Antibacterial* protected bristles clinically proven to keep brushes cleaner after use for up to 2 weeks of normal use.
GUM
An easier to use, more sanitary interdental system.
Proxabrush® Click
interdental brush
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Editorial

Dear colleagues,

It is now the end of my third year as editor of the Probe. I would appreciate it if others came forward to help out and contribute towards your newsletter.

We have had some great events lately:

26 September	Dr James Galea Minor Oral Surgery sponsor Augmentin
17 October	Annual Dental Conference
18 October	Dr Penny Hodge Periodontology
23 October	Kin Hydrat Lecture Pro-Health
31 October	Dr Keir Endodontics sponsor OralB
December	Curasept lecture
December	DAM Christmas Party

I have tried to present a summary of the lectures I have attended for the benefit of all.

Please do not send off for the "Physicians and Therapists Guide-Medical Directory" You will be inadvertently signing a 2 year contract which will cost you 983 euros per year for two years. This is exactly like the" European City Guide" con of a few years ago. Beware as you are being targeted-.read the small print at the bottom of the page. Do not be fooled!!! (probably the same people behind it again)

We would like to congratulate Dr Mario Camilleri for representing Malta in the spearfishing tournament in Tunisia in which he collected the second prize out of 58 teams. Also well done to Dr Kenneth Spiteri in achieving Grandmaster status in fencing

The picture of Saint Apollonia adorns our front cover-a fitting picture at this time of year. May she watch over us in 2008.

I would like to thank the members of the association who have helped with the events we have organized this year, and I hope next year will be even better. We need keen individuals to help us out. Before I joined the committee I used to admire Roger Vella and wonder why he used to put himself out to get all the events and lectures organized, and then I ended up doing it myself-someone has to do it and if there is apathy then everything dies, so I would like to appeal to the younger members to come forward and attend the next DAM AGM in January so we can make this a greater Association. Details of the Christmas party will be sent out by mail.

Dr David Muscat B.D.S. (Lon)

DENTAL-X DOMINA PLUS VACUUM AUTOCLAVE LECTURE
By Mr. EMANUELE SABADELLO

SALIENT POINTS OF LECTURE-

1. People say "it was much easier in the past when we just filled the autoclave and switched it on and we didn't have to worry". Yes, of course it was, but we were not really sterilising properly.
2. Sterisation pouches are not to be reused.
3. Do not use cheap-paper pouches, as these are ineffective
4. Sterilised instruments have a "shelf life of sterilisation "of around two weeks.
5. Sterilisation trays have to be perforated.
6. Packs have to be stacked vertically so as not to obstruct the holes in the trays. One can purchase a coiled stand for this purpose.
7. It is best to place dirty instruments in a bowl of disinfectant prior to cleaning. This reduces operator risk by 60-80%.
8. After disinfection, instruments must be thoroughly cleansed. There are "washing machines" for this purpose.
9. Ultrasonic baths are also useful presterilisation, but are not enough. One has to also physically cleanse.
10. After washing, the instruments must be rinsed with distilled water so as not to introduce tap water into the system.
11. After rinsing, the instruments must be dried on a paper towel prior to placing in the autoclave.
12. Packed instruments must have the date and cycle number written on the pack to verify and trace sterilised instruments.
13. The handpiece must be oiled prior to cleaning. (a) too much oil can harm autoclave (b) too little oil means you have not cleansed your handpiece properly (c) the oil contains a disinfectant agent in it (d) do not use grease
14. The door of the autoclave must be left open when steriliser not in use
15. Do not cover the top of the reservoir.
16. Scratched or damaged trays must be replaced.
17. Take care with quality of distilled water used. If red or white spots appear on the instruments, check your water.
18. Some distilled water which is sold for use in batteries may contain added nitric acid.
19. The helix test is better suited than the Bowie Dick test. The former is much cheaper, and the latter is better suited to much larger machines with much larger loads.

Dr David Muscat

The President and Committee Members of the Dental Association of Malta wish a Merry Christmas and a Happy and Prosperous New Year to all Dentists and their families

When I was recently laid up in hospital

When I was recently laid up in hospital, I was given many books as presents. I am an avid reader but one book which I devoured was "The Book of General Ignorance", forward by Stephen Fry (John Lloyd and John Mitchinson\ faber and faber). It contains such titles as: Henry VIII had two wives, the earth has two moons, all human beings have four nostrils, etc. However one title caught my eyes: What were George Washington's false teeth made from?

The simple answer was "Mostly Hippopotamus". The chapter continues with what caused Washington to lose his teeth and modern historians are of the opinion that the treatment for his smallpox and malaria with mercury oxide was the cause.

Washington started losing his teeth when he was only twenty-two and by the time he became president had only one tooth left. He had dentures fitted and contrary to popular belief were not made from wood but from hippopotamus and elephant ivory held together with gold springs. Real human teeth were used and attached to the carved hippopotamus and elephant ivory plates.

When one looks at the $1 bill, one sees a distressed George Washington and this is attributed to his dental problems. As analgesic, he used laudanum. The portraitist Gilbert Stuart, who didn't get on with the President, deliberately exaggerated his discomfort.

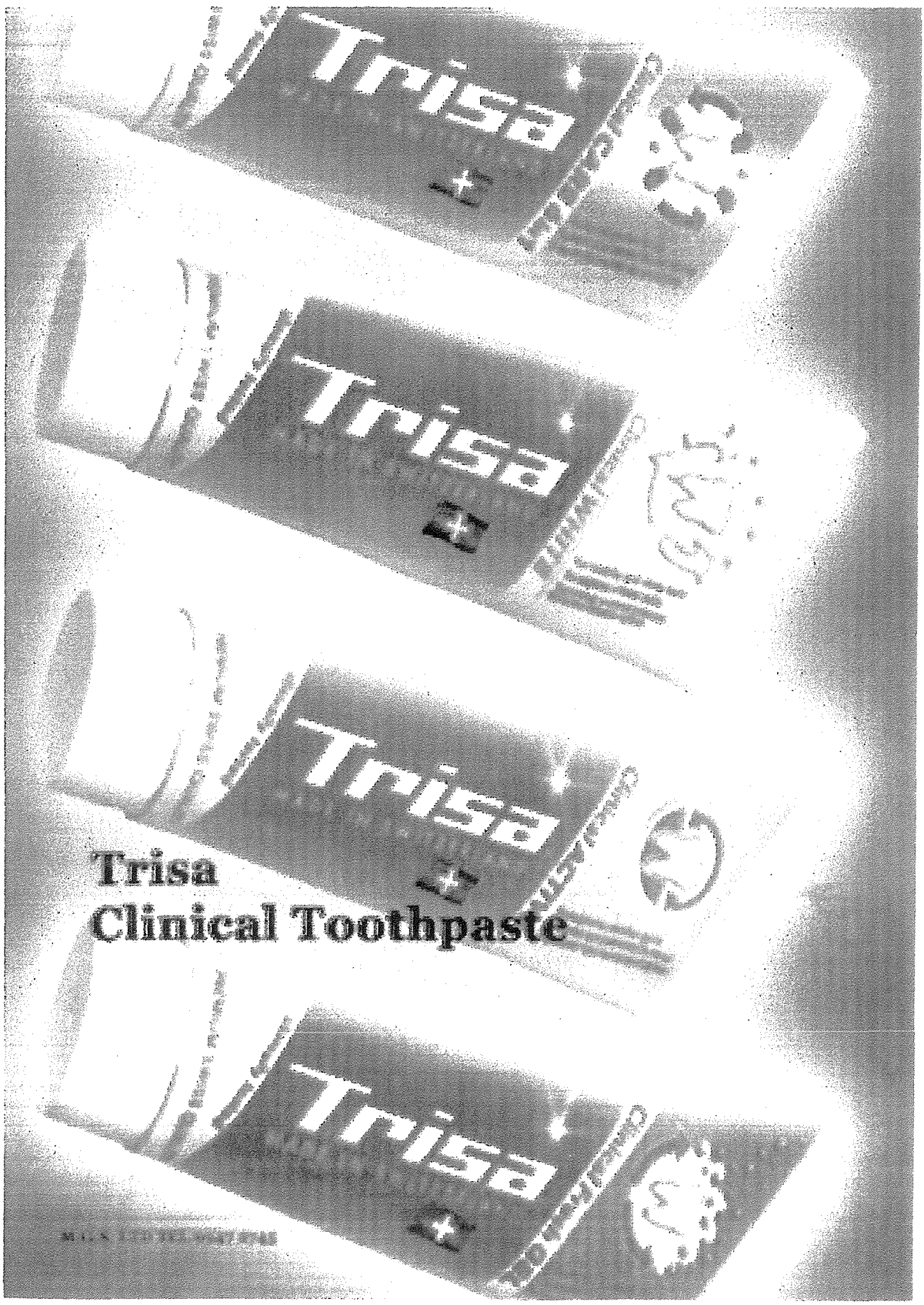
This chapter gives other interesting information related to teeth and I will mention some of them:

Human teeth were the teeth of choice until the invention of modern synthetic materials.

The best source for decent teeth was young people who fell on the battlefields such as Waterloo were 50,000 men died in battle. Their teeth were plundered wholesale for the denture market.

Cellulose was the first artificial material to be used with poor results as the drinking of hot tea resulted in melted teeth which tasted of ping-pong balls.

Dr. Anthony Charles


Trisa
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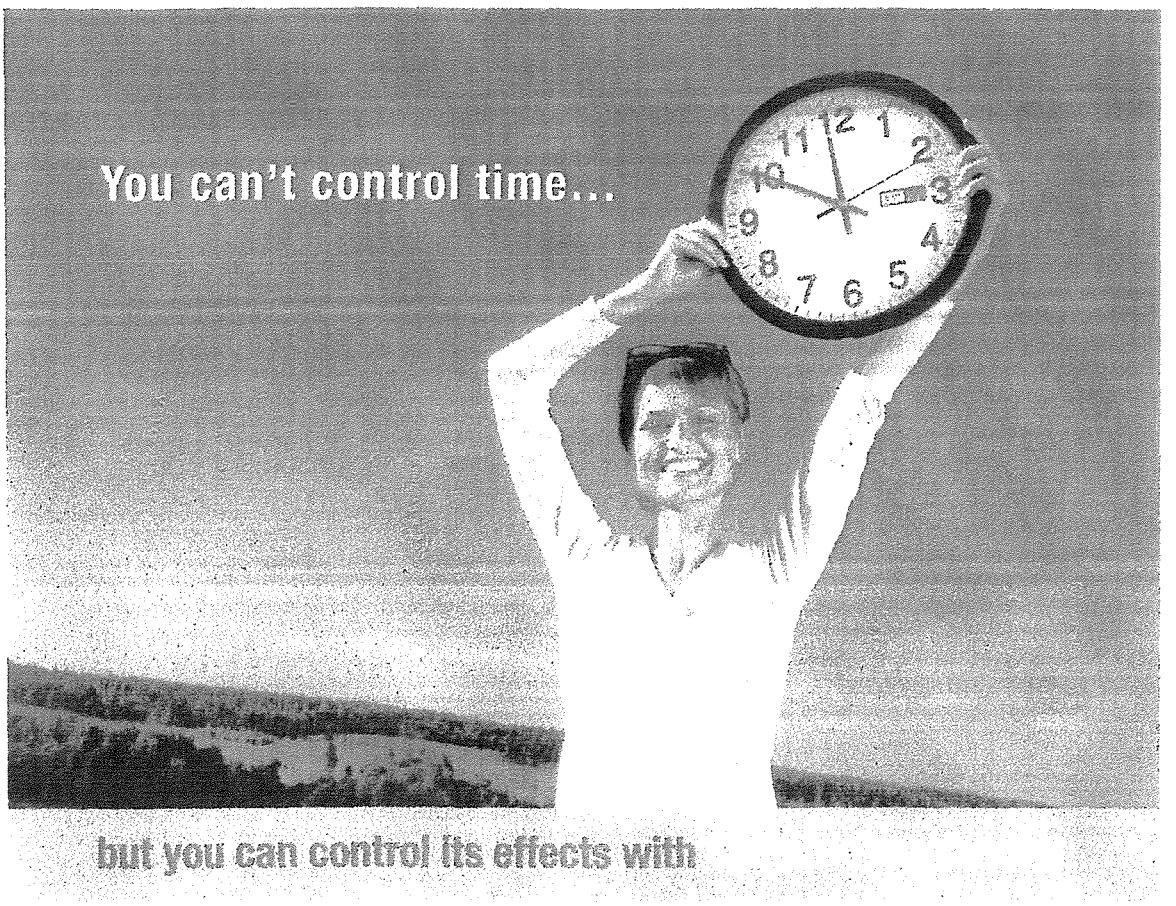
Clinical Toothpaste



With the passing of time, your gums do not cover as much of your teeth as they used to. Receding gums put you at risk of developing root cavities and could lead to further problems. The solution...**Colgate Time Control**.

Colgate Time Control has been specially formulated to provide you with everyday protection against the signs of ageing in your mouth.

Colgate Time Control Gum & Teeth Protection Refreshing Taste

ENDODONTIC DIAGNOSTIC PROCESS

by Dr Keir - a lecture summary

Patient's Chief Complaint
Patient Interview
Pain
Site and Source
Referred

Periradicular Diagnostic Procedures

Mechanical Tests
Palpation
Pressure
Percussion
Radiographic Examination

Palpation

Used to detect inflammation of the mucoperiosteum around the tooth root
Possible to detect tenderness, fluctuation, expansion or depression of the cortical bone

Pressure

Digital pressure is applied to the facial, lingual and occlusal aspects of the crown
Tooth sleuth for selective biting pressure
Rolled gauze or cotton roll used to detect sensitivity

Percussion

Used to determine the presence or absence of apical inflammation
Best performed with a mirror handle

Radiographic Examination

Show the whole root complex to include a substantial portion of surrounding bone
Appropriate angulations
Diagnostic quality

Pulpal Diagnostic Procedures

Thermal Test
Cold
Heat
Electric Pulp Testing

Thermal Tests Cold

Thermal Test Heat

Temperature 65-75C
Quality versus quantity
Can cause irreversible pulpal damage

Electric Pulp Testing

Positive test indicates vital tissue
No correlation between pain thresholds and pulpal condition
Unreliable in immature teeth with open apicies

Additional Diagnostic Tests

Test Cavity
Transillumination
Anesthesia

Pulpal Classification

Clinically Normal Pulp
Hyper reactive Pulpalgia
Acute Pulpalgia
Necrotic Pulp

Clinically Normal Pulp

Tooth is asymptomatic
Responds normally to external stimulation
No lingering or throbbing sensitivity

Hyperreactive Pulpalgia

Tooth does not present with spontaneous pain
Hypersensitive to cold and/or hot
When stimulus is removed, sensitivity quickly disappears

Acute Pulpalgia

Tooth presents with spontaneous pain made better or worse by external stimulation
No spontaneous pain, but is very sensitive to cold and/or hot
When stimulus is removed, the pain persists

Necrotic Pulp

Tooth is asymptomatic
Does not respond to pulp testing--cold, hot, EPT, or test cavity
No periapical radiolucency

Periradicular Classification

Acute Apical Periodontitis
Acute Apical Abscess
Chronic Apical Periodontitis
Suppurative Apical Periodontitis
Phoenix Abscess

Acute Apical Periodontitis

Tooth is very sensitive to biting and/or percussion
Direct result of pulpal disease, endodontic manipulation, or traumatic occlusion
No definitive radiolucency

Acute Apical Abscess

Symptomatic to touch and biting
No periapical radiolucency
Necrotic pulp or prior endodontic treatment
Vestibular swelling and/or facial cellulitis
Febrile and malaise

Chronic Apical Periodontitis

Tooth asymptomatic
Definite periapical radiolucency
Necrotic pulp or prior endodontic therapy
No sinus tract

Suppurative Apical Periodontitis

Tooth asymptomatic/ mildly symptomatic
Definite periapical radiolucency
Necrotic pulp or prior endodontic therapy
Presence of a sinus tract

Phoenix Abscess

Acute exacerbation of chronic apical periodontitis
Definite periapical radiolucency
Symptoms similar to acute apical abscess

DR KEIR ENDODONTICS LECTURE POST LECTURE Q AND A SESSION TOP 10 TIPS

1. With periapical abscesses Penicillin V is the first drug of choice, followed by Clindamycin.
2. With a periapical abscess, it is better to incise and drain , rather than drain through the tooth. The canal is narrow, and cannot afford much drainage.
3. After an ID block ,perform a cold test on the tooth before you start to operate. Only 65-70% of ID blocks work.
4. Always use LA as there will be discomfort due to the rubber dam clamps.
5. Never leave a restoration high.
6. Dental pain may refer to the head and neck.
7. One may carry out RCT in one visit as long as there is no swelling.
8. Always take a pre-op radiograph to ensure that the tooth can be restored properly after endodontics.
9. Check for root fractures prior to endodontics-it may end up as an expensive extraction in the long run.
10. A tooth may hurt due to a hot stimulus applied to it-due to gases in the pulp. Relief with cold will confirm diagnosis.

THE RARE CONDITION OF HYPERDONTIA

by
Dr C.J. Boffa ,
B.ChD, BPharm, FICD, Phd
Formerly Consultant Dental Surgeon DH

To the best of my knowledge the etiology of Hyperdontia is not fully known. It involves the growth of extra tooth gems besides the normal ones. This condition is very uncommon and when they occur they are usually in the anterior part of the mandible or the maxilla.

These supernumerary tooth gems can influence negatively the normal eruption of the adjacent teeth and generally and when possible their surgical removal is advisable. This can be a very delicate intervention and one has to be careful not to damage the nerves. It is surmised that this abnormal condition may be due to some form of disturbances of dentition during the fetal period or later.

I am summarizing some aspects which may be related to the possible etiology. The enamel germ is the basic structure in origination of tooth, since it is the first rudiment to appear and its presence conditions and in a broad sense regulates the formation of the dentinal papilla. It arises mainly by proliferation of the dental lamina - a continuous plate of cells turned in from the embryonic oral epithelium. The rods of cells which arise from the dental lamina and which gives rise to the enamel organs and related elements are not always limited to a single proliferation for each tooth of the normal series but certain accessory rods can on rare occasions be formed.

If situated deeply in or near the position of those which give to normal tooth germs, they may develop into what may be referred to as irregular duplicate germs which in due course grow slightly, or in certain other cases develop into supernumeraries. However other factors may be involved.

Acid Erosion. A way forward.
SENSODYNE
PRONAMEL
DAILY TOOTHPASTE
Protection now comes from ProNamel with Microhardening.

THE LIFE OF JONAS - CHAPTER NINE

Jonas woke up with a headache for the second time in a week.

He looked around him. He was back at home in Westerham.

He checked his wallet and watch. They were still there- cash , credit cards and all.

The housekeeper entered the room with a hot cup of coffee.

"So how are you this morning doctor?"

"How did I get here?" asked Jonas.

"You live here-remember?" replied Janet cheekily.

"Well", she continued, "two men brought you back drunk from the stag night, and asked me to let you sleep it off. Good thing you've taken the week off Dr Jones!" she said.

Jonas shot out of bed and looked across the road to George's antique shop. He rushed across the square and entered the building.

"Quite a party you and George had last night" said his wife.

"George is still asleep upstairs. Some men brought you and him over last night and said you were paralytically drunk and that it was best to let you sleep it off".

Sounds familiar, thought Jonas.

It seemed that whoever drugged them meant them no harm. They just wanted Sergei.

Besides, they were decent enough to get them back home, and they obviously knew a lot about them.

Jonas felt a bit groggy. He had led these people to Sergei and now God knows what will happen to him.

The more Jonas thought about it, the more convinced he was that some higher authority had a hand here.

George awoke at 5pm, also with a headache.

He was also startled to find himself at home, and even more surprised when he saw Jonas.

"Sergei has been taken, and we will probably never see him again" said George.

'Well, we know the names of the double agents" said Jonas, "so why did they not just kill us when they had the chance?"

"Maybe someone was protecting us" said George, as he looked outside.

Sergei was an illegal immigrant , and was also wanted in Russia, so Jonas and George could not just walk into a police station. Besides, they had no proof. Both Sergei and the computer chip were missing.

Jonas decided to confide in their local MP, the right honourable Clive Portman.

Clive was a barrister, and a very good one at that. He had "the gift of the gab" and his articulate manner won him many a case in High Court. He specialised in criminal law and was renowned for winning even the most hopeless of cases.

He was like a lion-He would study and stalk his prey, plan his assault and then go straight for the jugular in one clean swoop leaving you dead in your chair.

The right honourable Clive Portman QC MP barrister-at-law was married to Julia-a Harley Street gynaecologist.

They were rather affluent and lived in a fashionable part of town.

Clive had a small office in the centre of Westerham where he met his constituents once weekly. He was your upper-crust gentleman. He had several acres of land adjoining his palatial country house which had its own private lake.

He was fond of shooting wild rabbits.

Clive and Julia always attended events such as the Chelsea Flower Show and the Henley Regatta as well as the Epsom Derby and the races at Cheltenham.

Jonas met with Clive and recounted the whole story.

Clive picked up the phone and spoke with the Minister of Defence, who summoned him to his home that very evening.

Jonas and George thanked Clive, and made their way to the Grasshopper Inn, where they had a few beers before going home and waited for the outcome of the meeting between him and the Minister ...

THE LIFE OF JONAS CHAPTER TEN

The next morning Clive called Jonas and asked him to come to his office.

Jonas did so –during his well deserved lunch break.

"Well, Jonas you and your friends have certainly shaken the establishment with your story"said Clive, whilst adjusting the collar of his Chanel shirt and centralising his Paco Rabanne tie and his Westerham Conservative Association tie pin.

Jonas could smell the Polo after shave. There was a Countrylife magazine on his desk together with a couple of Mont Blanc pens.

Everything about the man exuded affluence, influence and confidence.

Jonas wondered which public school Clive had been to. was it Eton, or Rugby or Downside? The articulate manner and self-assuredness must certainly have helped Clive in his political career.

"Well, all I wanted to do was to start a dental surgery in Westerham" said Jonas.

"You certainly seem to attract action and adventure!" exclaimed Clive, as he poured two tots of Glenfiddich malt whisky into two little glasses he produced from his little cocktail cabinet.

He had quite a selection of drinks. The Baileys and Martinis were for the ladies. The port and sherry were no doubt for his friends after they returned from a round of golf at the local course or from sailing at Bewl Water reservoir.

Clive also was quite a good racing driver, and he was renowned for his dashing exploits in his converted Hummer at Brands Hatch. He also had several horses and

had participated in several equestrian events.
There was a print of Winston Churchill's painting of a beautiful white horse called the "Colonist". On the wall of his magnificent room Clive also had the shield of a zulu warrior and a spear of a masai warrior. He also had a japanese kudo helmet.
There were also Spanish swords and helmets dating back to the Armada.
At the back of one cabinet, he had a tiny mummified cat from 1060AD!
There was a library of legal books in a beautiful oak showcase. Adjacent to it was a tapestry on the wall depicting a scene from the New Testament "The marriage at Cana".
On the floor was a Persian carpet which had an amazing knotted design, and in each corner of the room stood an Etruscan vase.
"The three alleged spies mentioned are all under investigation and it is highly likely there will be arrests and prosecutions. Your friend Sergei was in fact taken into protective custody whilst you were in Scotland and unfortunately you all had to be quickly sedated – for your own protection of course.
You were being followed by both M15 and the Russian secret service but M15 got to you first.
"Sergei is all right and is currently out of the United Kingdom in a safe house in America where he is now living under an assumed identity. You understand that this conversation is never to be repeated outside this room", said Clive.
"What about George?" asked Jonas.
"You are to advise him that his cousin is safe and well and that in due course, maybe in a year or two, when all the dust has settled, he may ask him to visit him in America"said Clive.
"Now go back to your patients and save the teeth of our village" said Clive as he offered Jonas some Harrods mints he had in a porcelain dish on his Victorian oak desk.
Jonas thanked Clive and made his way towards the door, bending his head as he did so as he was rather tall. The floorboards creaked and there was a smell of varnish.
He had to reassure George and get back to his routine. He had a busy afternoon schedule.
He hoped that he would have a quiet week with nothing out of the ordinary for a change.
As he returned to the clinic for his three O'clock patient Jonas smiled at his nurse and looked at Mrs Smiths' notes.
"Been on holiday lately doctor ?" asked Serena Smith, the lovely radiant twenty-two year old secretary with a twinkle in her eye. She had a beautiful tanned figure and she certainly fancied him.
"Just up to Scotland, but when I got there I slept, and I don't even remember the return trip!" said Jonas with a grin.
"Gosh you must be working too hard," said Serena as the nurse left the room to see to the next patient.
"Maybe you should come to the Grasshopper with us tonight, and relax a little. You can meet Elena, my Russian friend...."

DENTISTRY IN STAMPS.

In the previous issue we featured an envelope, which through its cancellations, and addresses revealed some details of the early history of our Association. This is called Postal History as distinct from the classical form of stamp collecting which is assimilation of stamps by country. Many persons nowadays collect stamps related to one topic such as birds, football and in our instance, dentistry. This is known as a Thematic Collection. Many countries have been issuing stamps with a dental connection and there are a number of booklets and websites dealing specifically with Dentistry in Stamps.

BULGARIA. 1968. 56th World Dental Congress of the Federation Dentaire International held in Varna, Bulgaria. 20s. gold, green and red. Congress Building and Emblem.

The International Dental Federation has been holding an Annual Congress since the first Paris Meeting in 1900. Nowadays most host countries issue a special stamp to commemorate the event and apparently the first country to do so was Bulgaria in 1968. The huge congress building had been just built and I had read a paper at this Meeting.

Prof. George E Camilleri

THE DENTAL MANAGEMENT OF THE AUTISTIC PATIENT

By Dr David Muscat

Autism is a rare psychiatric disorder marked by communication and language difficulties with repetitive behavioral patterns and resistance to change. There is a spectrum of autism. The rate is 3.3 to 3.6 in 10,000 in Caucasions with boys normally affected more than girls.

The main features are lack of acquired language, poor play skills and lack of eye contact. The child does not understand abstract concepts nor any concept of the needs of others or if others are in distress.

There is a limited range of interests and an insistence on routines. There is an absence of imaginative activity. There is an abnormality in speech production. Children with autism cannot make sense of their surroundings. They do not understand irony or implied irony.

The cause of autism appears to be a combination of genetic vulnerability and perinatal injury eg. flu, toxaemia, bleeding, method of delivery.

If speech develops, the speech, intonation and word integration are unusual. They may speak in a very loud voice or in a soft monotone or sing-song fashion.

Autistic patients may be on haloperidol so one has to exercise care when prescribing narcotic analgesics due to the additional neural depressive effects. Naltrexone is also used to decrease hyperactivity and restlessness.

Children with autism are vulnerable to caries because of their unusual eating habits, food preferences and nutritional deficiency. At the dentist, patients are uncooperative and can cause disruption. The dentist has to empathise both with the child and the parents, and a great degree of patience, time, care and professionalism is called for. Oral health care and preventative measures are paramount, as is dietary advice.

Self-injury is another problem eg. lip and cheek biting. Some children "pouch" their food. Others chew with their mouths open. Others stuff food into their mouths.

Autistic patients are unresponsive to demonstrations and resist personal contacts and communication. There is a lack of social and emotional capacity so it is difficult to explain what you are about to do. There is thus difficulty in patient-dentist interactions. It may be impossible to take radiographs or impressions.

Orthodontic appliances have to be made so as to require minimal patient compliance. Nitrous oxide and diazepam have been used with limited success.

Each individual is different and may require a different approach. Some adolescent autistic patients have poor oral hygiene which may be attributed to limited manual dexterity or lack of understanding or appreciation of oral healthcare.

Dentists need to use the full range of behaviour modification techniques. Dental appointments need to be made so the patient is not kept waiting eg. a long first afternoon appointment. Dental appointments should be arranged in a way so as not to disrupt the daily routine of the child.

Sometimes one needs to get the child to have a look around the clinic the day before the appointment. Autistic children will not tolerate waiting, so the dentist must be on time.

Positive verbal reinforcement and token rewards may help adjust to the dental environment. Most importantly the dentist must be willing to be patient to gain the trust and co-operation of the autistic patient

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THE PROTAPER ENDODONTIC PRESENTATIONS BY PROFESSOR EDMOND KOYESS

A report by Dr David Muscat

Microscopes have opened up a new world in endodontics . One may monitor bubbling of sodium hypochlorite in an access cavity, until the organic material is completely removed. There are sometimes ectopic entries to canals. The most important factor in endodontics is the cleaning out of the organic material and elimination of bacteria-the enemy. The root canal filling has to be cemented with homogenous cement. One must monitor the filling of the apical, middle and coronal parts of the canal. The filling is in three dimensions. Clean walls allow for better adhesion of posts. Most failures are due to a missed root canal. All upper molars have four canals. In a re-treatment procedure one has to completely remove pre-existing material starting at the access cavity.

Failures of root canal therapy are

1. INTRARADICULAR

Bacteria left lost or undiscovered in the canals
Contamination
Loss of seal and reinfection.
Enterococcus Faecalis usual cause
The bacteria survives as a biofilm.

2. EXTRARADICULAR

A Radicular cyst forms.
An iatrogenic post preparation may be responsible
A. Israeli usually cause

Re root canal treatment can be carried out with

protaper instruments. One must inform patient properly and not unduly raise expectations.
D1 removes coronal third
D2 removes middle third
D3 removes apical third

One can use a combination of manual and rotary instruments. A hand file is used to overcome resistance and confirm canal permeability. NiTi files cannot be used to remove resin-type pastes. With eugenol-based pastes, the paste can be softened with DMS IV solvent.

CARDINAL RULES
Do not exert pressure on NiTi
Use a light hand
Do not force
Clean instrument between uses.
Re root canal treatment is sometimes preferable to extractions and implants especially where there is not much bone left. Re root canal treatment can result in healing of the apical lesions and regrowth of healthy bone. Cement showing through sideways on canals is a sign of good rct as you have sealed accessory canals.

THE PREVENTION OF FRACTURES
Stainless steel instruments make room for NiTi rotary instruments. The coronal and middle parts are enlarged to 15 and 20 manually, and this opens the path for smaller instruments to working length.
Take from the canal what it offers you.
Work your instrument where it wants to reach.
Remove organic matter and go deeper.
Work passively-no pushing.
Do not rush to WL at the first steps of the preparation.
The instrument is not a drill.
MULTIPLE TAPERS FOR NI TI
Stainless steel instruments have a 2% taper.
NiTi is 10 times more flexible than steel.
One must reduce the contact with the canal walls.
Wider tapers will cut more efficiently.
You go from a 2%, 4%, 6%, 8%, 12% taper.
Multiple tapers allow more efficiency in cutting.
One uses the CROWN DOWN technique on the coronal part to then allow you to work the middle of the canal for a smaller instrument to work at the apical part. Once the full length has been reached, then you STEP BACK for the final shape.

1 You need a taper shape as this is mandatory for cleaning and packing. You are unlikely to push material through the apex with a taper shape.
2 You need a system to work in a crown-down system
3 Simplicity. Three instruments perform in all the techniques for all canals. 3 Shapers 3 finishers. On the same instrument you have different tapers.

THE SHAPERS
There is a small taper at the tip and a wider taper at the shoulders. On the coronal part-the first part that is cut which allows the finer parts to proceed.
There is a positive cutting angle
There is a convex triangular section. There is enough material to resist breakage.

THE SEQUENCE OF PROTAPER
K10 glyde WL PROVISIONAL
K15 GLYDEPATH
S1 as far as it goes within; (at this point you would have removed curves)
K10 to full length; (at this point verify final WL ,electronic and X ray)
S1 full WL
S2 full Wl
The electronic apex locator is more accurate. A radiograph is accurate in only 60% of cases, as the foramen could exit in the side of the root. The radiograph is used to see which side of the root the foramen is exiting. The instrument is placed in the canal at full length.

FINISHING
F1 to 0.5mm short of WL
F2 set to 1 mm short of WL
One must always show full respect of the curve of the canal.

THE CARDINAL RULES OF PROTAPER INSTRUMENTS
A Radiograph to assess length, curves, canal space, radicular areas and calcification of canals; eg less radioclarity of canals indicates 2 canals present-the pulp space is splitting into 2 canals.
Rubber dam
Direct radicular access. From one position you should see all canals. There should be no interferences. Do not economize on the access cavity. With no good rct, you have failed.
Abundant irrigation. You need to work in a 4 walled cavity. A large volume of hypochlorite above canals required. Always work in a wet canal filled with hypochlorite.
Scouting –use 08,10 to explore
A rotary instrument is designed to shape the canal, not find a canal. Slow speed. The Senseus Profinder size 10,15, 20 is for exploring, instead of k files. The profinders have a narrower taper at the tip, so there is less contact with the walls. They have a large silicone handle, so you can

hold it firmly and have better control and grip. It is flexible and gives you better feedback.

Light pressure. Use a reliable motor. Similar to writing with a lead pencil without breaking the lead.

Small amplitude. Never use the instrument in the same position. It must be used in a continuous motion as it is revolving .Otherwise at one point you will have tension and compression at the same point and you will get a fracture. Work 1 mm at a time – like painting in small details.

Crown Down .Slow progression. No pushing. The larger instruments open up the path for the smaller instruments to the WL.

When removing file check where the instrument has worked in the canal by looking for debris on it. Check the blades and check for deformation. Avoid screwing effect.

Replace your files. S1 and S2 are to be only used on one molar ie 4 canals once. At the end of the procedure , after you have used F1 and F2 you can gauge canal by sending a size 20 top full length. If it snugs, it is size20.If it flows, go up to size 25 gp and tap tap

CANALS THAT MERGE-LOWER MOLAR

The ML canal will be easy but the MB more difficult.

The ML is straighter that the MB. The MB canal has a curve towards the ML.

Work the ML and place a Gp point in the MB. Use a file in the ML canal and you will get a pinpoint intersection.on the gp point. This way you get the final length for the mesial canals.

Stick to principles

Case selection.

THE NEW PROTAPER F4(size 40) and F5(size 50)-manage wider apical diameters.

Dedicated paper points are available.

Tapered 6% GP available.

SHAPING CANALS

Remurs are triangular .Files are squarish. Flexible instruments are triangular. Files have less flexibility, but more resistance. The protaper has a triangular cross section, with a multiple taper and a variable helix angle and a non-cutting guiding tip. The fight is against bacteria and sodium hypochlorite has to reach the apical area. Only the Maillefer instruments will widen the apical area, which has to be flushed out.

First use stainless steel K08,10,15,20 with a watch winding action. 3 or 4 revolutions and remove. Clean the blade with alcohol and go back. This creates the space for the tip of S1 to go into the canal .Use 300 revs /minute.S1 will act to remove interferences with the canal walls esp. mesial aspects in lower molars-the dentine triangle. For mesial canals with S1,one leans against the mesial wall. On the distal canal one would lean against the distal wall. The idea is to get a direct and straight position for the files. Therefore same name

Distal root-distal wall mesial root-mesial canal.

After removing the coronal interferences with S1, the instrument can flow to the foramen. Now the 2nd part of the canal can be worked to the end after being worked with NiTi.

S1, S2 can now go to full length. An instrument can only work with 2 curves at a time. Remove one curve and then the other, not at the same time.

FOR IMMEDIATE RELEASE

Fluoride toothpaste helps prevent tooth decay confirm leading experts from stomatology

BEIJING, 19 September 2007 – More than 70 experts in stomatology gathered at a conference on "Oral Health through Fluoride for China and South-east Asia" on September 18-19, 2007, in Beijing, China. The conference was jointly organised by the World Health Organization (WHO), the FDI World Dental Federation, the International Association for Dental Research (IADR) and the Chinese Stomalogical Association (CSA).

The stomatological experts confirmed in a final conference declaration that fluoride toothpaste remains the most widespread and significant form of prevention of and protection against tooth decay used worldwide. It is also the most rigorously evaluated vehicle for fluoride use.

Dr Lingzhi Kong, Vice Director of the Bureau of Disease Prevention and Control, Ministry of Health of the People's Republic of China, welcomed participants and said, "access to affordable fluoride is a human right for all citizens in China".

Amongst those present at the conference were Prof Ramon Baez, representing the WHO Global Oral Health Programme in Geneva, Dr Michèle Aerden, President of the FDI, Prof J.M. ten Cate, President-Elect of the IADR, and Prof Luan Wenmin, Vice President of the CSA. Other Chinese and regional participants included representatives from the Dept of Preventative Dentistry, professors from various schools and universities of stomatology and public health professionals from the Department of Chronic Disease Control and Prevention.

"During the WHO's World Health Assembly in May, Member States adopted a resolution on oral health, which urged the establishment of national plans for the use of fluoride based on appropriate programmes for automatic administration through

drinking water, salt or milk, or topical use, such as affordable toothpaste," said Prof Baez, WHO representative. "We hope that this conference will invigorate those in China and Southeast Asia to move the agenda item forward."

"Fluoride for dental health has been proven to be one of the most effective public health measures known in the 20th century," said Dr. Aerden, President of FDI.

"The implementation of affordable access and appropriate exposure to fluoride has been successful in many parts of the world. We hope that this conference in China will encourage Chinese dental professionals to work in partnership with all stakeholders including the government and health organisations to promote the benefits of fluoride toothpastes to the public."

"Researchers in IADR have studied fluoride efficacy and safety for more than 70 years and concluded that optimal levels of fluoride prevent dental caries and is the most realistic way to improve oral health on a worldwide scale," added Prof ten Cate, President-Elect of IADR.

The Need in China is Great

The usage of fluoride toothpastes is widely endorsed by professional stomatological organisations worldwide. The CSA joined the WHO, FDI and IADR in this follow-up conference to last year's "Global Consultation on Oral Health through Fluoride" held at the WHO Headquarters to reaffirm its safety and efficacy. The CSA recognises fluoridated toothpastes as an effective, yet economical, way to prevent dental caries in China.

According to the latest figures from the CSA, dental caries in China remains a pressing issue with the caries rate being 77% for deciduous teeth and up to 65% for permanent teeth.

"While there has been significant improvement over the past decade, dental caries is still one of the most prevalent oral diseases in China," said Prof Luan. "Fluoride toothpastes are safe for daily usage by all adults and children. We hope that the promotion of fluoride toothpastes by dental professionals will reduce this problem and significantly improve overall Chinese oral health in the long run."

About WHO: WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends, visit www.who.int.

About FDI World Dental Federation: The FDI World Dental Federation is the worldwide, authoritative and independent voice of dentistry. With more than 130 national dental associations in more than 125 countries around the world, it represents nearly one million dentists internationally. For more information about the FDI, please visit the FDI website at www.fdiworldental.org.

About IADR: The International Association for Dental Research, headquartered in Alexandria, VA in the United States is a non-profit organization with more than 11,000 members worldwide. Its mission is: (1) to advance research and increase knowledge for the improvement of oral health worldwide; (2) to support and represent the oral health research community; and (3) to facilitate the communication and application of research findings. For more information please visit www.iadr.org.

About CSA: The Chinese Stomatological Association (CSA) is an independent academic organization made up of scientific and technological personnel in the field of Stomatology. The CSA is a legal body. It was preciously known as the Stomatological Society of the Chinese Medical Association established in 1951.

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Dr. J.J. MESSING.

The death of Dr. J J. (Jack) Messing occurred in January of this year. Many generations of Maltese graduates of the eighties and nineties are thankful for the dedication and interest during his many teaching visits on Restorative dentistry. He graduated B.D.S. in 1946 and had a long and distinguished teaching career in Newcastle, at the Eastman Dental Hospital and finally as Reader in Operative Dental Surgery, University College London. His main interest was in Endodontics and was known for his many technical advances in the armamentarium of the subject and co-authored a well-known Atlas on Endodontics. He also gave a number of lectures to the Dental Association and was one of the speakers at our International Conference. He will be fondly remembered for his positive contribution to our school.

Prof. George E Camilleri

MINOR ORAL SURGERY LECTURE by Dr James Galea

SALIENT POINTS OF LECTURE

1. Any dentist can do oral surgery provided he or she can deal with the possible complications that may arise.
2. Sutures in the hard palate are a waste of time.
3. Chlorhexidene is the best pre and post op mouthwash.
4. The best way to stop bleeding from a damaged artery during an operation is to cauterise it.
5. The best way to protect a nerve is to first locate it. If you do not know where it is you cannot protect it.
6. Damage to the anterior nasal spine will result in depression of the soft tissues, and produce an unaesthetic result.
7. If the lingual nerve is damaged, do not suture it, but place back into canal and approximate ends together.
8. Try to avoid sutures in the floor of the mouth as you may puncture the submandibular duct which is very superficial.
9. An apicectomy is only indicated if there exists what appears to be a good root canal treatment-which has for some reason has failed.
10. Always aspirate when giving an id block.
11. Lingual split procedures are effective in young patients, but the operator must be experienced.
12. An infection around an impacted 8 will actually push the tooth away from the inferior alveolar nerve, and make the extraction a lower risk.
13. A vertical impaction of a lower 8, although maybe deep, is usually low risk, as the delivery of the tooth is straight upwards.
14. Always remove bone if it is obvious you have to do so, as you may fracture mandible otherwise.
15. Always protect the adjacent structures during operation.
16. Try to preserve the buccal artery in mandibular procedures and you will get better post-op healing.
17. Cutting through temporalis muscle causes a lot of post-op pain.
18. Avoid tight suturing. Sometimes wounds are best tied with simple sutures or none at all.
19. During lingual- flap procedures, always ensure your retractor is under periosteum.
20. Radiographs are two-dimensional. The impacted 8 may not be pressing on the id canal at all.
21. A semilunar flap may not always afford one sufficient access to an operation site and some pathology may be missed.
22. Procedures should not take more than 20-30 minutes, as longer than this and the patient is going to get stressed.
23. Sometimes healing occurs better without antibiotics.
24. Some recent studies have suggested that antibiotics actually delay healing after implant placement.
25. It is unethical to apicect a tooth you know has a hopeless prognosis.
26. Always protect the surrounding tissues when carrying out a procedure. You must think of the speed of the healing process afterwards and the comfort and well-being of the patient.

BDA Seminar Series
A must attend seminar for **EU/EEA graduates**

Dentistry in the UK

Thursday 7 February 2008
British Dental Association, London

This seminar if primarily aimed at European Union dentists who would like more information on working in England. "Dentistry in the UK" will cover dentists' regulatory obligations and the regulations regarding health and safety, infection control, radiation protection and Continuing Professional Development (CPD) as well as information on how to avoid common pitfalls. If you feel that you have limited understanding of UK legislation then this seminar is for you!

Programme
08.30 Registration, refreshments and exhibition
09.00 Welcome from the Chair
Chair: Nilesh Patel, *Associate Dentist, London*
09.10 Working in the UK
· Examining the structure of dental practices in the UK
· How dentistry is delivered in the UK, ie: NHS, private, mixed practices

· Overview of regulations . an explanation of the NHS Performer.s list, the NHS contract and clinical governance issues
· Employment contracts and staffing options
· An explanation of the services offered by the BDA
***Penny Stayte**, Head of Practice Support, and **James Goldman**, Special Adviser (Legal), Professional Advisory Services Directorate, BDA*
10.30 An essential guide to regulatory issues
· How to register with the GDC and what it means to register as a dentist in the UK
· Guidance of the standards that dentists must adhere to when working in the UK
· CPD and revalidation discussing your educational obligations
· Professional conduct . adhering to your ethical obligations and the consequences of non-compliance
***Duncan Rudkin**, Chief Executive and Registrar, GDC*
11.10 Exhibition and refreshment break
11.30 NHS dental practice . the clinical governance framework and dentists. obligations
· Overview of the clinical governance requirements what is required of you and what is expected by the Primary Care Trust
· Attracting and retaining patients
***Lesley Derry**, Head of Professional Services, Professional Advisory Services Directorate, BDA*
11.45 Your responsibilities concerning health and safety issues and infection control
· Basic health and safety legislation and enforcement
· Risk assessments and COSHH
· Overview of general infection control requirements
· Blood Borne Viruses (BBVs) and Creutzfeldt-Jakob Disease (CJD). what you need to know
***Daniel McAlonan**, Health and Safety Adviser, Professional Advisory Services Directorate, BDA*
12.45 Essential information on radiation protection and your responsibilities
· Examining your responsibilities under the current radiation regulations
***Daniel McAlonan**, Health and Safety Adviser, Professional Advisory Services Directorate, BDA*
13.10 Lunch and exhibition
14.10 Best practice guide for record keeping, confidentiality and consent
· Importance of creating and maintaining accurate records
· Measures to ensure patient confidentiality
***Ulrike Matthesius**, Education Adviser, Professional Advisory Services Directorate, BDA*
15.10 Exhibition and refreshment break
15.40 Common pitfalls to working in the UK
***Brian Westbury**, Dento-Legal Adviser, Dental Protection Limited*
16.25 Closing remarks from the Chair
16.35 Close of seminar

Look out for programme updates on www.bda.org/events

Registration
The seminar costs:
BDA members: **£150**
Non-members: **£190**
DCPs and non-dentist spouses: **£110**
The fee includes refreshments, a buffet lunch and all course documentation. If you would like to attend, please complete the registration form overleaf.
Accreditation - The seminar meets the educational criteria set by the GDC for verifiable CPD (5hrs 30mins) and is certified by the British Dental Association.
Cancellations - Cancellations received in writing more than one calendar month before the seminar (Monday 7 January 2008) will be subject to a 25 percent administration charge. For cancellations received in writing less than one calendar month before the seminar, a 100 percent charge will be made. Substitutions are welcome at any time. Due to unforeseen circumstances the programme may change and the BDA reserves the right to cancel the event or alter the venue and/or speakers.

Further information - For further information on the programme and arrangements for the seminar please contact: Emma Gordon, Events Executive, British Dental Association, 64 Wimpole Street, London W1G 8YS
Tel: 020 7563 4590; **Fax:** 020 7563 4591; **Email:** events@bda.org

Future BDA events - A full programme of BDA Events can be seen at www.bda.org/events. If you are interested in this seminar, you may also wish to attend **Career opportunities in UK dentistry** - a conference and exhibition organised by the BDA and UCL Eastman Dental Institute on Friday 8 February 2008 at the Hotel Russell, London. Call the BDA events team on 020 7563 4590 to request a brochure or go to www.bda.org/events for further details.

British Dental Association
64 Wimpole Street
London W1G 8YS
Tel: 020 7563 4563
Nearest underground stations are Bond Street on the Central and Jubilee lines and Oxford Circus on the Bakerloo, Central and Victoria lines.

BOOKING FORM – Dentistry in the UK

Please complete this form **IN BLOCK CAPITALS** and post or fax it, with your payment, to: Emma Gordon, Events Executive, British Dental Association, 64 Wimpole Street, London W1G 8YS. **Tel:** 020 7563 4590 **Fax:** 020 7563 4591 **Email:** events@bda.org

Please photocopy this form for multiple bookings.

Title: First name:

Surname:

Job title:

BDA membership number:

Address:

Postcode:

Tel: Fax:

Email:

Any special requirements, including dietary, disabled facilities, etc

I would like to book:

❑ Thursday 7 February 2008 – BDA, London (E122)

❑ delegate at **£150** per person (BDA members)

❑ delegate at **£190** per person (Non-members)

❑ delegate at **£110** per person (DCPs and non-dentist spouses)

Payment:

I enclose a **cheque** for **£____.__** made payable to the **British Dental Association** *(please write the seminar code E122 on the back of your cheque)*

Or Please **debit my credit/debit card** *(tick box)*: ❑ Visa ❑ Mastercard ❑ Switch/Maestro

Card number:

Start date: Expiry date: Issue no *(Switch/Maestro)*:

Security number (last three digits on the reverse of your card):

Name of cardholder:

Address of cardholder *(if different from above)*:

Postcode:

Cardholder signature: Date:

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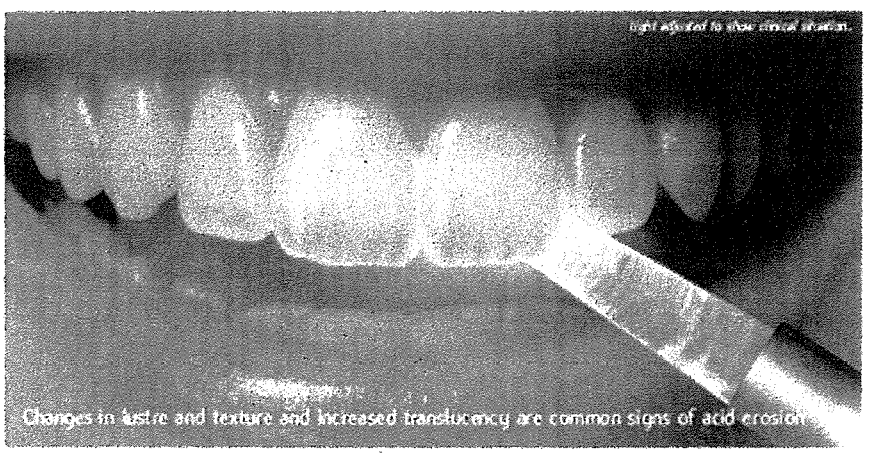
Acid Erosion. Exposed.

Evolving challenges in oral health

One of dentistry's many successes is to have reduced the prevalance of caries and periodontal diseases, extending the longevity of the natural dentition. Infectious diseases have given way to a spectrum of degenerative conditions, one of which is the multifactorial challenge of tooth surface loss.



Changes in lustre and texture and increased translucency are common signs of acid erosion

The healthy diet paradox

Tooth wear has much to do with the modern, health-conscious lifestyle. Diets today are often high in acid from sources including certain soft drinks and fruit juices. These demineralise and soften the tooth surface making it more susceptible to physical damage and tooth wear. Acid erosion is normally an insidious process, often only highlighted by clinicians when restorative dentistry is indicated.

Early intervention is key

Increased awareness at routine examination added to lifestyle advice may help prevent sensitivity, changes in colour and tooth shape; and ultimately the need for major restoration.

Expert advice is now available

As awareness grows, acid erosion is featuring increasingly significantly in the management of long-term dental health. With this in mind, product innovation and public education are high on our agenda.

Recognising the early stages of acid erosion can be as simple as switching on a light. For expert guidance on signs, symptoms and management, visit www.acideresion.com