

# DENTAL TRIBUNE

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## Head injury link to violent crime



Head injuries can dramatically increase the chances of someone committing violent crime, a study has found.

In a group of 22,914 traumatic brain injury victims, almost 9 per cent went on to commit acts of violence after diagnosis – three times the rate in the general population.

The British and Swedish scientists who carried out the re-

search defined violent criminals as those convicted of homicide, assault, robbery, arson, sexual offences, or illegal threats or intimidation.

Epilepsy was also investigated as previous studies had suggested it can increase the risk of violence, but scientists found no significant association between it and violent crime. [\[1\]](#)

## Sensors which monitor cells' health developed

Tiny sensors which monitor the health of cells have been developed by scientists in a move which could improve the diagnosis and treatment of cancer and degenerative illnesses.

The sensors - so small you could fit several of them into a single cell - measure the tiny electronic signals that keep cells functioning.

When the signals become irregular, it can indicate that the cells have been damaged by inflammation, toxicity, or disease.

Experts believe their sensors could help create a test to diagnose and monitor the progress of conditions such as macular degeneration, Parkinson's and Alzheimer's disease.

They may also boost drug development by offering an insight into how cells respond to therapy.

The project, which has been on the go for three years, is being led by Dr Colin Campbell of the University of Edinburgh's school of chemistry.

He said: "Electronic activity in cells is strictly controlled and normally runs like clockwork - so when it goes wrong, it can be a

sign of disease. Our device offers a safe, effective method to test the health of cells."

The sensor is made of molecules, known as "reporter" molecules, which are capable of responding to cell electrical activity, or "potential". They have been mounted on to gold particles that can be inserted harmlessly into cells.

The result is a sensor which can be scanned with a laser to give a measure of electrical activity in the cell, indicating whether it is healthy or not.

Dr Campbell said: "What you've got is effectively a nanosensor. The particles are about 150 nanometres in diameter. They're absolutely tiny.

"The reporter molecule changes its structure depending on the potential inside the cell.

"From a single particle inside the cell, you can figure out which state those reporter molecules are in and what the potential is inside the cell."

Researchers have so far been working on tissue cultures in the

laboratory but are looking at how a test could be developed for use on patients.

They say their device improves upon existing techniques, as it has greater sensitivity, better accuracy, and does not interfere with the cell's functioning.

Dr Campbell, who has worked closely with student Craig Auchincloss on the project, said: "We're looking to translate it out of chemistry labs and get it more into biology labs, so that it becomes a standard tool of biology."

"We would also like to look at using it 'in vivo', say in a hospital situation.

"If you could use them 'in vivo', you could figure out which parts of a tumour are being regulated differently, in a way that makes them respond badly to therapy.

"I would also hope that we could use this to try and screen for drugs."

The study, funded by EaStCHEM and the university, was published in the ACS Nano journal. [\[1\]](#)

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# IDC - Excellence in clinical dentistry Current Concepts and Controversies

Under the patronage of His Highness Sheikh Dr. Sultan bin Mohammed Al Qassimi, Supreme Council Member and Ruler of Sharjah, concluded the activities of the Third International Dental Conference held by the College of Dentistry at the University of Sharjah in

collaboration with the Division of Dental Society, Emirates Medical under the slogan: "Excellence in clinical dentistry – Current Concepts and Controversies."

The conference discussed more than twenty-five scientific papers with more than two hun-

dred participants from the UAE and Saudi Arabia, Lebanon, Jordan, Malaysia, Turkey, Australia, Britain, Germany and Switzerland.

Prof. Rani Samsudin, Dean of the College of Dentistry and Co-chair of the Conference, pointed out to participants in his speech



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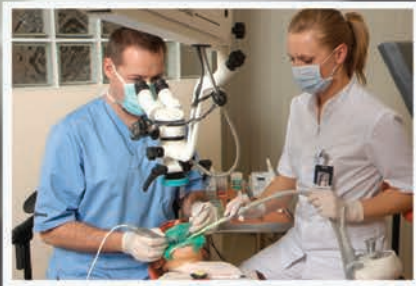
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the importance of this conference and the role of the College and University Dental Hospital in serving the community of the UAE and the region.

Dr. Aisha Sultan Head of the Dental Society, EMA/ Co- chair of the Conference and Dr. Sausan Al Kawas, Head of Oral and Craniofacial Health Sciences Department, presented the closing speech on behalf of the Organizing Committee of the Conference, where they thanked the sponsor of the conference, Sheikh Sultan bin Mohammed Al Qassimi, and everyone who contributed to the conference attendees and staff of dentists, technicians, nurses and dental students.

At the end of the conference, the scientific committee selected the top three researches published in the posters. First, submitted by students of the College of Dentistry at Sharjah University; Nadine Ghattas, Rania Hassan, and Tasnim AbdulAzim, supervised by Dr. Sohail AlAmad. Second, also College of Dentistry students, Sharjah University, submitted by; Soumya Radwan Soumya molijy, supervised by Dr. Firas Alqaran and Dr. Reem Al Haj Ali. Third, Dr. Abeer Namnkane from University Col-

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# Cetylpyridinium Chloride, An innovative molecule

The use of physical and chemical components for oral hygiene dates back to approximately 3000 years before Christ. Throughout history, man has developed tools to take care of teeth and prevent bad odour<sup>1</sup>. Later, with the emergence of microbiology, it was found that those responsible for bad breath and the most common oral diseases were bacteria, and removing them with antiseptics was proposed.

Until now, a series of compounds with the ability to eliminate microorganisms have been tested; however, it has been discovered that not all of them can be used in the oral cavity, because they can potentially damage soft tissues, mucosa or teeth, or because they have an unpleasant taste or smell. These difficulties still exist today and should be resolved in order to come up with effective oral hygiene tools.

A series of compounds that are capable of combating dental plaque exist and have been classified as follows:

**Antiseptic agents** that prevent proliferation and/or eliminate microorganisms that form plaque.

**Antibiotics** capable of inhibiting or killing specific bacterial groups.

Enzymes or enzyme combinations that can break up or disperse the extracellular matrix of the biofilm or act upon the community physiology.

**Non-enzymatic**, dispersing, denaturalising or modifying agents that can alter plaque structure or the metabolic activity of plaque.

Agents that can interfere with the adhesion of the acquired pellicle.

Currently, a great number of toothpastes and mouthwashes are available on the market that are presented as products that are efficient in maintaining optimal oral health. Different antigingivitis and antiplaque products are formulated with active ingredients such as triclosan (toothpastes), stannous fluoride (toothpastes), a combination of essential oils (mouthwashes), alcohol (mouthwashes), chlorhexidine (CHX) (mouthwashes and toothpastes) and cetylpyridinium chloride (CPC) (mouthwashes and toothpastes).

**Pros and Cons of CHX, alcohol and CPC**

Currently, the majority of mouthwashes use CHX, alcohol

and CPC as their active ingredients or a mixture of these. However, different studies have found that alcohol can present some adverse effects, such as oral or oesophageal cancer and the deterioration of synthetic dental reconstruction materials and is contraindicated in patients with mucositis, immunocompromised patients, patients undergoing head and neck irradiation, sensitised patients and in children<sup>2,3</sup>.

**DIFFERENT STUDIES HAVE SHOWN THAT MOUTHWASHES CONTAINING CHX, CPC AND A COMBINATION OF BOTH ACT EFFICIENTLY AS ANTIPLAQUE AGENTS ON HALITOSIS AND ON GINGIVITIS.**

Different studies have shown that mouthwashes containing CHX, CPC and a combination of both act efficiently as antiplaque agents on halitosis and on gingivitis<sup>4,5,6</sup>. CHX is probably the most frequently used molecule in different health disciplines due to its excellent antibacterial effect<sup>7</sup>. Particularly in the oral cavity, it shows the best results for treating periodontal disease. However, it is true that it does possess some adverse effects, such as promoting the formation of calculus, tooth staining and a bitter taste. Also, some clinical studies have described that it may cause mucosal irritation and desquamation<sup>1</sup>. Because of CHX's side effects, certain molecules such as CPC have become very important. Currently, new formulations are being developed to improve the effectiveness of CPC either alone as the main active ingredient or in mouthwashes combined with CHX.

**DIFFERENT STUDIES HAVE SHOWN THAT CPC IN DIFFERENT CONCENTRATIONS IS EFFECTIVE IN REDUCING SUPRA AND SUBGINGIVAL DENTAL BACTERIAL PLAQUE**

Nowadays, CPC is being used in various applications in the food industry, since it is capable of eliminating pathogens such as Salmonella spp. and Campylobacter spp., as well as killing Staphylococcus spp. bacteria in proportions of 1:50000 in merely 10 minutes. It is also used in the pharmaceutical and cosmetic

mouth and teeth, and the development of the possibilities currently provided to provide the best dental treatment to patients. The participants stressed the attention to patients with special needs, and to hold more conferences and training workshops in order to deal best with these groups of society. <sup>DT</sup>



*Halitosis ?*





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industries and as a cleaning and disinfecting agent<sup>9,10,11</sup>.

#### Cetylpyridinium Chloride (CPC)

N-hexadecylpyridinium chloride or CPC is classified as a cationic quaternary ammonium surfactant, is soluble in alcohol and in aqueous solutions; it can act as a detergent and as an anti-septic, it is non-oxidizing and non-corrosive and has a neutral

pH8. Its molecular structure is made up of a polar and a non-polar region, as shown in figure 1.

This molecule has bactericidal and bacteriostatic activity against Gram positive and Gram negative bacteria, although evidence suggests that it is more effective against the first ones. It is thought that its mechanism of action on bacteria is at the plasma membrane level (Mandel, 1988) where the positive charge creates an attraction between the molecule and the neg-

ative charge of the phospholipids that make up the bacterial cell membrane. Once the molecule attaches to the membrane, the non-polar side of the CPC penetrates and alters the cellular membrane. This alteration causes an osmotic imbalance and causes loss of cytoplasmic material and then cell death.

Even though it can also stain enamel, it does this at a much lower degree than CHX. Different in vitro and in vivo studies

have proven that CPC at different concentrations is effective in reducing supra and subgingival dental bacterial plaque, which in turn also reduces inflammatory response<sup>12,13</sup>. Likewise, work carried out by Roldán et al in 2005 clearly describes that a formulation with CPC, CHX and Zinc Lactate has very good results, significantly eliminating anaerobic microorganisms, such as *F. nucleatum* and *P. intermedia* from the tongue surface and from the saliva.

Similarly, a clinical study comparing different mouthwashes showed a reduction in anaerobic microorganisms in patients' saliva samples.

This same study also measured the quantity of volatile sulphur compounds (responsible for the bad odour of halitosis) and proved that they were reduced considerably when using mouthwashes with CPC as one of its active ingredients<sup>14</sup>.

In a review from year 2008, van den Broek et al compared results from different clinical studies where the activity of different mouthwashes against halitosis was tested. They point out that studies in which products like HALITA, which contains CPC, CHX and Zinc Lactate in its formula are the ones that yielded the best results.

Other clinical studies have tested mouthwashes with different formulations and concentrations of CPC<sup>15,16</sup>. In general, their results show that this compound, by itself at different concentrations has antiplaque effects. It has also been combined with Sodium fluoride, alcohol and CHX with the intention of reducing the concentration of the two latter compounds because of their adverse effects.

Thus, it has been proven that CPC can be used as a treatment for certain oral pathologies, like for instance, mucositis, especially in patients who have undergone irradiation for head and neck cancer or those who suffer from periodontitis or gingivitis.

#### Dr. Rubén León

Director of R&D at Dentaid. B.S. in Biology and PhD in Genetics.

#### What research has Dentaid carried out on the CPC molecule?

At Dentaid, a number of studies have been performed using this molecule, that have led to the confection of diverse formulations that currently aid in human oral hygiene. Also, among these, we have studies on antimicrobial activity, stability studies of the formulations for replacing ethanol in mouthwashes and improving CPC's bioavailability.

We have also carried out different clinical studies with national and foreign universities that have shown that products containing this molecule are among the most efficient on the market.

Having proven the properties of this molecule, how is Dentaid applying it in its products?

Dentaid has developed a line of products that contain CPC among its active ingredients, products that are meant for care and treatment of pathologies like periodontitis, gingivitis, halitosis or maintenance in patients that have been treated for periodontitis. Currently, a group of products is being developed where this molecule has greater bioavailability.

"Dentaid has developed a line of products that contain CPC among its active ingredients" <sup>17</sup>

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# Eating Lean Beef Daily Can Help Lower Cholesterol

A new study published in the January 2012 edition of American Journal of Clinical Nutrition shows that beef can play a role in a cholesterol-lowering diet, despite commonly held beliefs. The study found that diets including lean beef every day are as effective in lowering total and LDL "bad" cholesterol as the "gold standard" of heart-healthy diets (DASH, Dietary Approaches to Stop Hypertension).

The Beef in an Optimal Lean Diet (BOLD) clinical study (Effects on Lipids, Lipoproteins and Apolipoproteins), conducted by The Pennsylvania State University (PSU) researchers, evaluated adults with moderately elevated cholesterol levels, measuring the impact of diets including varying amounts of lean beef on total and LDL cholesterol levels. Study participants experienced a 10% decrease in LDL cholesterol from the start of the study, while consuming diets containing 4.0 and 5.4 oz. of lean beef daily.

"This research sheds new light on evidence supporting lean beef's role in a heart-healthy diet. Study participants ate lean beef every day and still met targets for saturated fat intake," says Penny Kris-Etherton, PhD, RD, distinguished professor of nutrition at PSU and the study's principal investigator. "This study shows that nutrient-rich lean beef can be included as part of a heart-healthy diet that improves risk factors for cardiovascular disease."

#### The Research

The study used a rigorously designed Randomized Controlled Clinical Intervention Study to investigate the effects of cholesterol-lowering diets with varying amounts of lean beef. Thirty-six participants (adults ages 50-65 with moderately elevated cholesterol) were randomly assigned to a treatment order and consumed a total of four diets for five weeks each. The cross-over design allowed each participant to serve as his or her own control, reducing any errors associated with biological variation.

The four diets tested in the study were: Healthy American Diet (HAD) as control; Dietary Approaches to Stop Hypertension (DASH); Beef in Optimal Lean Diet (BOLD); and Beef in Optimal Lean Diet Plus (BOLD-PLUS). Although BOLD and DASH diets were both rich in fruits, vegetables, whole grains and low-fat dairy products, the diets differed in their primary protein source.

The BOLD and BOLD-PLUS diet's primary protein source came from lean beef while DASH and HAD included white meat and plant protein. The BOLD diet included an average of 4.0 oz/day of lean beef and the BOLD-PLUS diet included 5.4 oz/day of lean beef, while the HAD and DASH diets included 0.7 and 1.0 oz/day of lean beef, respectively. [\[1\]](#)

#### Research Findings

After five weeks, total cholesterol and LDL cholesterol in the participants were significantly reduced in the BOLD, BOLD-PLUS and DASH diets compared to the HAD diet.

Overall, participants following the BOLD and BOLD-PLUS diets experienced a 10% decrease in LDL cholesterol from

the start of the study. The improvements in heart health risk factors seen from the BOLD diets were as effective as those from the DASH and other heart-healthy diets, many of which emphasize plant proteins.

"This research adds to the body of evidence concluding that you can include beef in your diet every day and get heart-health benefits," says Shalene McNeill,

PhD, RD, executive director, human nutrition research for the National Cattlemen's Beef Association, which contracts to manage programs for the beef check-off. "Americans now have more scientific evidence for including lean beef in a heart-healthy diet."

Many of the most popular beef cuts, such as Top Sirloin steak, Tenderloin, T-Bone steak and 95% lean Ground Beef meet

government guidelines for lean. In fact, sixty-five percent of all beef muscle cuts available in grocery stores are lean. On average, a 3 oz. serving of lean beef is about 150 calories, an excellent source of six nutrients (protein, zinc, vitamin B12, vitamin B6, niacin and selenium) and a good source of four nutrients (phosphorous, choline, iron and riboflavin).

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# New Planmeca ProX intraoral X-ray unit makes intraoral imaging easier and more precise than ever before

The Finnish dental equipment manufacturer Planmeca Oy increases its comprehensive collection of imaging products with a new intraoral X-ray unit – Planmeca ProX. The advanced unit provides easy and precise positioning, a straight-

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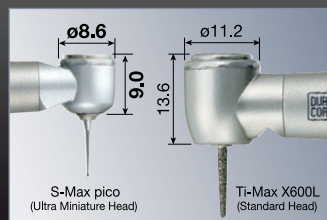
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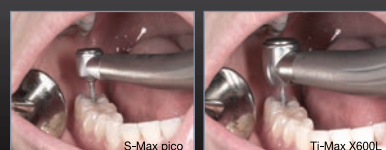


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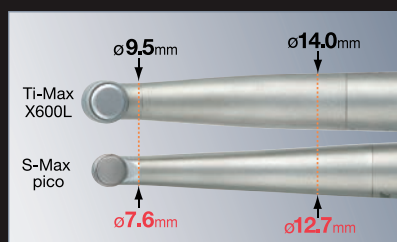
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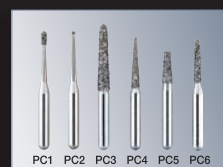
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(Mr Timo Müller, Vice President, X-ray Division)





# Ban on HIV dentists in the UK could be lifted

From news reports

**LONDON, UK:** HIV-positive dentists and doctors in the UK could soon be allowed to practise again, provided they are taking anti-retroviral drugs and are being monitored, British media report. According to newspaper *The Independent*, the UK Department of Health is to announce that the automatic ban on dentists and doctors with HIV carrying out

procedures that might potentially lead to blood contamination could soon be lifted.

The newspaper has learnt that ministers are planning to hold a consultation before Christmas to obtain views from across the medical and dentistry professions, as well as from experts and members of the public. A final decision will probably be made in 2012.

The possible regulation change comes after a study of the evidence presented to the Chief Medical Officer Dame Sally Davies, which concluded that the risk of transfer during any medical procedure is now negligible and the likelihood of any infection to be as low as one case every 2,400 years.

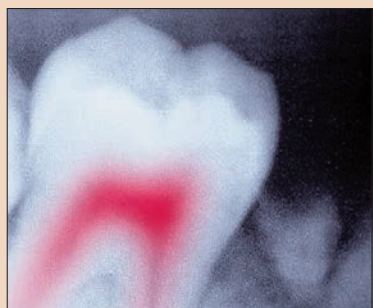
The prohibition, which has been in place for 20 years, forbids health workers in the UK who are

infected with HIV to perform exposure-prone procedures. Hospitals and dental surgeries have long followed a “don’t ask, don’t tell” policy with regard to HIV positive practitioners, sources in the medical profession told the newspaper. They believe that—regardless of the emotive nature of HIV—the policy can no longer be justified on public health grounds and that it is therefore clearly discriminatory. [4]



According to latest news reports, HIV-positive dentists and doctors in the UK could soon be allowed to practise again. (DTI/Photo lenetstan )

## Study reveals that post-endo pain has different sources



**CHICAGO, Ill. & MIAMI, Fla., USA:** Tooth pain occurring after endodontic treatment might originate more often from another source than from the treated tooth itself. Having reviewed studies from a period of 60 years, U.S. researchers claim that in six out of ten cases of post-endodontic pain, the cause had nothing to do with the tooth that was treated originally.

In their review published in the December issue of *The Journal of the American Dental Association*, researchers from the University of Minnesota School of Dentistry analysed 10 out of 770 English-language studies conducted between 1949 and 2009. It was required that treated teeth qualifying for inclusion in the review be followed up for at least six months after treatment.

According to the review, the findings could have serious implications for the diagnosis and clinical management of post-endodontic pain. Dr Paul Benjamin, a dentist from Miami, said in a commentary that was also released by the journal that should the results be verified, almost 700,000 cases of tooth-related pain could be misdiagnosed on an annual basis in the U.S. alone. He advised clinicians to incorporate the new knowledge into future diagnoses of post-endodontic pain and to eliminate other possible sources, including pain associated with the musculoskeletal system or systematic diseases like cancer.

Post-endodontic pain has been identified in latest studies to occur in 5 to 6 per cent of all endodontically treated teeth. Clinical management is usually focused on the treated tooth itself and includes administering pain-relieving medication. [4]

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# 1th international tissue care symposium

## Hyaluron acid – use in the oral cavity

Under the presidency of Prof. Dr. H. Jentsch, department of periodontology university Leipzig/Germany, numerous well known international experts found together for the 1th German symposium for the use of hyaluron acid (HA) in the oral cavity. The aim of this symposium

was, so Jentsch explained, an optimization of known therapy methods with high evidence class. Refinement and modification with additional medication should improve the results in measurable outcome.

Hyaluronic acid is used since years especially in cosmetic medicine

as an acknowledged and useful application. Responsible are the special features of the naturally in connective tissue found substance. These are, as Mr. Jentsch explained, regenerative, tissue saving and strengthening the immune response. As a big advantage this substance seems to

show absolutely no side effects, so the actual status of scientific literature. This should be a big point in decision process, in comparison to other medical substances. It is a fact, that more and more even growing older people are possessing natural teeth – as health surveys show – and this will become

urgent importance in health systems with care for such people. Additional we have to handle specific problems of aging, as sensibilities or resistances against antibiotics. HA has a big potential in periodontology and oral surgery, the use is not widespread and new, so a symposium with discussion of the actual discoveries could be very helpful.

For the implanting dentist interesting was the speech of Prof. Dr. Sebastiano Andreana/University Buffalo / NY. He is working on biological aspects of the regenerative healing after oral surgery. It is shortly to postulate: the GTR is working and reality. It is possible to grow hard tissue as well as soft tissue with regenerative techniques. Bone and soft tissue growth factors are clinical working and can be used in periodontal tissue, as numerous studies have shown. But, the healing uninfluenced by negative factors is the critical point. Andreana invited the definition „Critical Size Defect“, CSD, that was enormous limiting. Here was the angiogenesis, the mechanical environment and the function of bone stem cells responsible for. In case of periodontal defect total absence of any inflammation is sine qua non, so Andreana. Beside this there are host factors limiting. The CEO of the department of implantology of the University of Buffalo showed the biological mechanism of the bone regeneration by the example of the physiologic processes. Blood vessel associated PDGF is as well determining as BMP 2 with direct influence on bone cells – this can easily explain the mechanism. Using some picture sessions Andreana demonstrated his success, for example in alveolar ridge augmentation.

Prof. Dr. H. Jentsch, Leipzig/Germany, first presented some facts about epidemiology of gingivitis and periodontitis. It should be acknowledged that the problems of a mostly with periodontal diseases diagnosed population are urgent. Nevertheless the speaker as an academic periodontist had all reason to mention this fact again and again. While every periodontitis begins with gingivitis, it makes sense to have a close look on the gingivitis. Concerning this item Jentsch refereed about a study produced in his department. The outcome is interesting: if a patient frequently uses Gengigel mouth rinsing solution this results in obviously better data in API (aproximal plaque index) and SBI (sulcus bleeding index), especially in the center of inflammation. The scientist stated with caution: “Gengigel could be used with positive effects”. In cases of periodontitis Jentsch uses a combination of CHX (chlorhexidine) and HA (Gengigel Prof. and Gengigel Mouthrinse), the same procedure as the scientist from Beograd had advised. As he is a periodontist he naturally prefers the curettage, but he concedes that at least the use of HA as an additional pharmaceutical backing of the therapy is useful. He measures with this therapeutic variation an API of less than 35%. In case of the today usual all-in-one therapy (all periodonts treated in one appointment

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ment) the adjuvant support of the root planning this may have positive effects on the prognosis. Also in the study on Leipzig University the bacteriological and clinical results have shown positive effects, especially the pocket depths in the verum group decreased. Also in bacteria tests the outcome was significantly positive. Jentsch published the opinion, that the application or prescription of Gengigel would lead to a long term stabile situation – best credentials for recall and aftercare.

Prof. Dr. Peter Calgut from London/UK presented the results of the last British health survey 2009. Only 17 % of the population are free of periodontal diseases, and similar to the German reports, the rate of periodontitis is still climbing. The British survey shows that people have in 8 % severe, 37 % moderate and 45 % light periodontal inflammation. Calgut suspects, that this epidemic data could be caused by the aging of the population. How the periodontal inflammation arises is since long enlightened, but every periodontist presents the facts anew, the records showing that not enough is done against this wide spread disease. The periodontal inflammation is caused by bacteria, and modulated by host factors the immune response develops the periodontal scene. Today it is supposed that additional to the genetic factors also environmental influence are triggering the periodontal disease.

Prof. Guillaume Campard from Nantes/France also is searching on HA and postulated the clinical parameters of success:

Adequate diagnosis, non-traumatic surgery, flap management, suture technique, wound stability, and bacteria control. He also recommends HA, because it is present in tissue anyway and in higher concentration the positive effect can be strengthened. HA stimulates the angiogenesis, prohibits the migration of endo- and exotoxins, regulates the phagozytosis, shows bacteriostatic properties, binds to growth factors, and this advantages are local and not systemic.

Dr. Marco Tremolani from Milan/Italy uses HA successful in orthodontics of his juvenile patients.

In his studies he found a direct effect of HA on the bleeding tendency. He mentioned as positive, that HA medications “taste good” and “do not burn” like others, which seems very good for the compliance. With an average BOP (bleeding on probing) of 21, 64 % before and 7,87 % after application of HA the data is more than just convincingly.

Prof. Reha Ya vuzer from Istanbul/Turkey demonstrated how to use HA is in cosmetic medicine. His case reports, illustrated with

interesting pictures, gave an idea how many people are unsatisfied with their appearance and that they want to change their looks. And HA is an ideal material to serve them – it is gentle and of little risk.


Dr. Alfredo Aragüés from Burgos/Spain was the last speaker. He is specialized on smokers. Aragüés is a convinced user of the laser and makes use of this modern instrument in all possible indications. So he applies the laser as

well in hart tissue therapy (fillings) as in soft tissue indications, like periodontology or oral surgery. Aragüés takes additional to the laser HA for accelerated healing. His therapy protocol: 3-5 times daily Gengigel Gel for 3 to 4 weeks. The highlight of this presentation: he is convinced, that with his therapy method the prognosis for smokers and non-smokers is equal. His explanation for this astonishing conclusion: Gengigel protects tissue before the unhealthful substances of

smoke. He advises therefore all smokers: stop smoking, and if you are not able to, at least apply as much as possible HA Gel on the mucosa before smoking

The symposium gave an overview and transported a lot of knowhow on this new and rare known therapy variation and should stimulate the participants to deal intensive with this item.

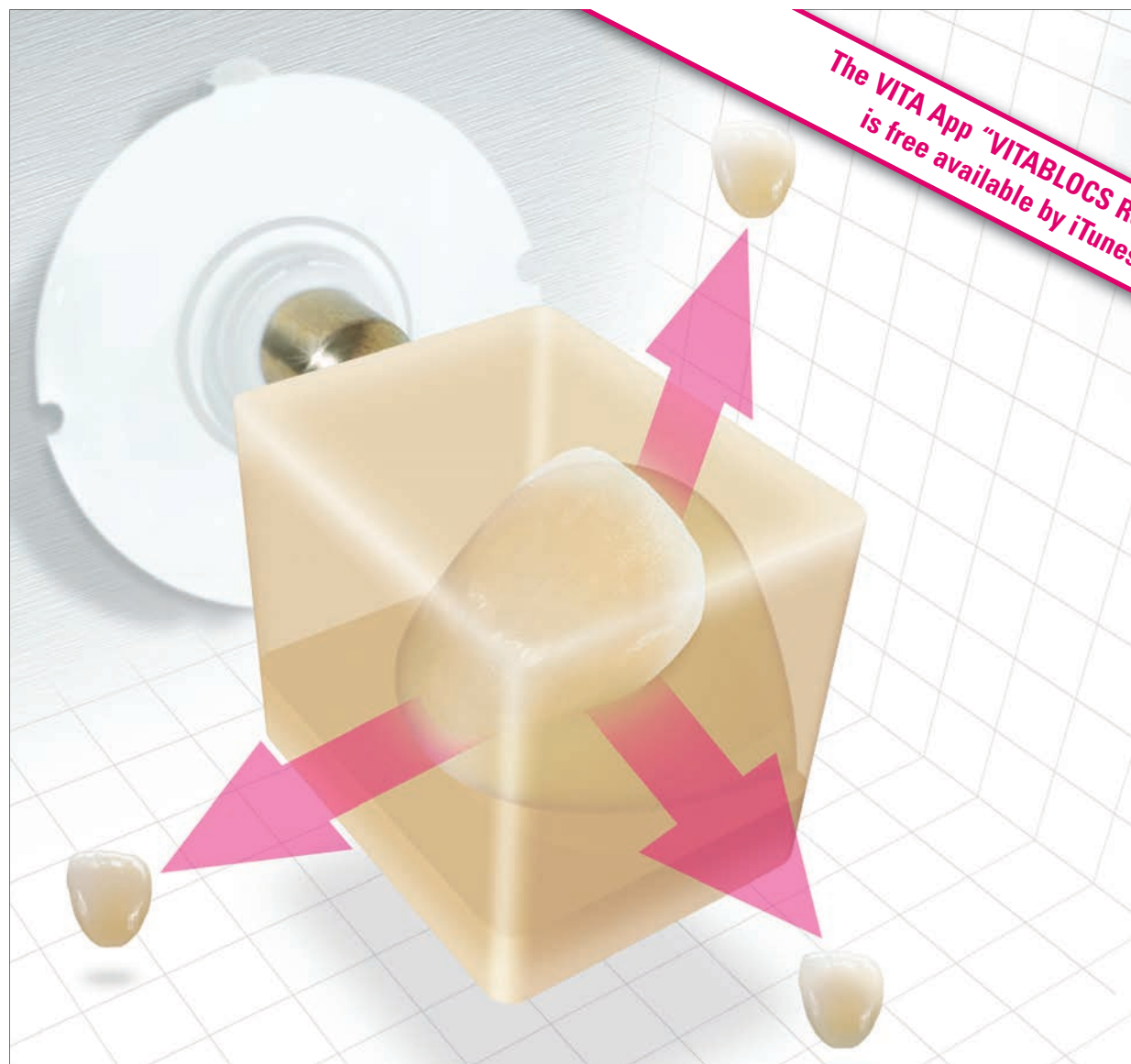
The symposium was videoaped in full length and the video can be ordered via :

www.dentalkolleg.de. 

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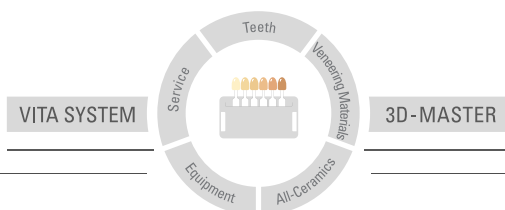


## Transplant surgeon donates own kidney to save his mother's life

A transplant surgeon has joined the ranks of organ donors by giving up one of his own kidneys to save his mother's life.

Asim Syed, 32, who has carried out more than 100 operations at Hammersmith Hospital, London, became a patient in his own unit and was operated on by colleagues.

He is believed to be the first transplant specialist to become a donor. He put himself forward when his 64-year-old mother, Dilshad, became ill and was told she could die within months. 



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