The result of a United Nations treaty will see a reduction in mercury pollution, as agreed by more than 140 countries at talks in Geneva on 20 January.

The treaty has been under negotiation for four years, and will be open for signature in October.

The treaty requires nations to “phase down the use of dental amalgam”, and to set objectives aimed at minimising its use. Mercury-free alternatives will be promoted, and education on the use of mercury-free dental restoration encouraged.

Although mercury has long been a benefit in oral health care, it can be damaging to health on a whole.

The World Health Organisation (WHO) says: “Mercury is highly toxic to human health, posing a particular threat to the development of the (unborn) child and early in life.”

“The inhalation of mercury vapour can produce harmful effects on the nervous, digestive and immune systems, lungs and kidneys, and may be fatal.”

“The inorganic salts of mercury are corrosive to the skin, eyes and gastrointestinal tract, and may induce kidney toxicity if ingested.”

The impact of mercury pollution was famously seen in Japan during the 1950s and 60s. Following mercury waste pollution in the waters, residents near to Minamata bay developed nerve disorders, resulting in more than 900 deaths.

The British Dental Association (BDA) has welcomed the treaty. Dr Stuart Johnson, member of the BDA’s Principal Executive Committee, and leader of the FDI World Dental Federation Dental Amalgam Task Team at the negotiations, said:

“Dentists in the UK recognise the environmental imperative to minimise mercury emissions, but it was important that this treaty took account not just of the environmental agenda, but also of the need for dentists to care for their patients.”

“We are pleased to see that this treaty has taken a pragmatic view, acknowledging that the phase-down approach advocated by the World Health Organisation is a sensible way to make progress. The final treaty strikes a sensible balance, clearly setting out an aim for reduced use of mercury, while recognising the unique contribution it makes to oral healthcare. It also recognises the important role that prevention can play in improving oral health and reducing demand for fillings.”

Hundreds of dentists failed to renew registration

Over 700 dentists missed their annual registration renewal deadline with the General Dental Council (GDC). Figures from the GDC show that 722 dentists did not re-register and were removed, while 757 voluntarily removed themselves and 96 applications have been made for restoration to the register. The number of dentists that did complete their registration renewal was 38,539. The deadline was 31 December 2012 and those who failed to pay the annual registration fee (ARF) will now have to apply to restore to the register, in order to work legally in the UK.

MI Paste reduces white spot lesions during ortho

A study, published in Evidence-Based Dentistry, has found that the use of MI Paste Plus prevents and reduces the number of white spot lesions during orthodontic treatment. Sixty patients undergoing orthodontic treatment were randomised to receive either MI Paste Plus (GC America, Alsip Ill) or a placebo paste. There was a 55.5 per cent in the enamel decalcification index score in the MI Paste Plus group but an increase of 94.1 per cent in the placebo group at the end of the 12 week period. ICDAS scores were added together to give an overall score for all teeth; the MI Paste Plus group score was 145 at baseline and 90 after 12 weeks, a 44.8 per cent reduction; in the placebo group, the score were 116 and 166 respectively, an increase of 45 per cent. It was concluded that MI Paste Plus prevented and decreased the number of WSLs during orthodontic treatment, with the placebo paste group having an increase in the number of WSLs during the trial.

“Use of dental amalgam to be ‘phased down’

UN mercury treaty agreed by 140 countries

The deadline for signature of the treaty was 1 December 2012 and those who failed to pay the annual registration fee (ARF) will now have to apply to restore to the register, in order to work legally in the UK. MI Paste reduces white spot lesions during ortho
Professor Andrew Eder appointed Associate Vice-Provost (Enterprise) at UCL

Professor Andrew Eder has been appointed Associate Vice-Provost (Enterprise) at UCL and Director of CPD and Short Course Development.

The position, with a mandate to facilitate growth of this key area across the University, follows Professor Eder’s recently completed work as Director of Education and CPD at the UCL Eastman Dental Institute, for which he was recognised for his excellence and innovation in teaching and learning at UCL as a recipient of a Provost’s Teaching Award in 2010. Professor Eder will also continue to be involved in postgraduate dental education at the Eastman.

“To have a background in educational entrepreneurship and leadership, I am delighted to be appointed to a leading role in this exciting initiative at UCL,” said Professor Eder. “As the global demand for high quality lifelong learning continues to expand almost exponen-
tially, UCL is superbly placed to be a leading provider.”

As a Specialist in Restorative Dentistry and Prosthodontics, Professor Eder also maintains a multi-disciplinary referral practice in Central London. He has a special interest in the aetiology, demographics and clinical management of patients with tooth wear. He is Co-Editor of the British Dental Journal book on Tooth Surface Loss and Clinical Director of the London Tooth Wear Centre®.

COPDEND announce DF training places data

At the end of the first phase of this year’s recruitment process, 85 per cent of applicants have been offered places on dental foundation training schemes in England, Northern Ireland and Wales that start in 2013. Plans were agreed by a steering group comprising postgraduate dental deans and associate deans, together with representatives from the UK Dental Schools Council and British Dental Association and members of the London Deanery recruitment team.

The London Deanery, which has considerable expertise in medical and dental trainee recruitment, managed the process.

There were 1172 applications made online, 1155 eligible candidates, including 109 from European Dental Schools and 17 from other dental schools worldwide, were invited to one of six selection centres in November 2012. Of these, 1158 applicants attended for assessments that were carried out by experienced foundation trainers and training programme directors, who had undergone standardised training and calibration.

Each applicant was asked to state a preference order for each of the 78 training schemes and offers of a place were made on the basis of ranked scores achieved and stated preferences. Those who scored highest were offered a place on the scheme they most preferred. All 955 currently available places were allocated within a week of offers being made.

Deaneries will be allocating those successful applicants who have accepted offers to individual training practices over the next few months.

Further training places are expected to become available later in the year and 161 candidates on a reserve list will be notified about these after 2013 BDS final examinations are concluded. Future offers of a place will be made on the same meritocratic basis as in this first round.

A follow up independent quality assurance of the entire process will be carried out to ensure the process is both transparent and fair. COPDEND and the London Deanery are also undertaking a thorough evaluation, including statistical analysis of the data from the selection centres.

Helen Falcon, Chair of COPDEND said, “I would like to congratulate all those who have been offered a training place for 2015 in the first round and to thank all the interviewers, assessors, administrators and the London Deanery recruitment team for working so hard to ensure a fair process.”

To understand that the uncertainty may be unsettling for those who are still waiting to hear about whether a training place will be offered to them later in the year and would like to wish all applicants success in their forthcoming final examinations.”

Shortlist for new dental pilot practices announced

Dental practices across the country are preparing for an exciting new challenge as the shortlist of those chosen to continue shaping a new dental contract is announced.

The Department of Health has shortlisted an extra 29 new practices to join the existing 70 practices on the pilot scheme from April. The second stage of this programme has been expanded to help test how the different elements of the new contract work together.

The new pilot sites will see some of the inventive new techniques to improve dental care spreading to new areas of the country. The pilots focus more closely on preventive care and new ways to make both adults and children take a bit more care with their toothbrush.

One of the biggest changes being tested is exploring how dentists can be paid for the health results they produce rather than the number of courses of treatment they perform.

Barry Cockcroft, Chief Dental Officer for England said: “I am delighted to welcome the new practices to the pilot scheme and know they will continue with the excellent work which has been carried out so far.

“We were inundated with applications and choosing the shortlist was very difficult but we were keen to make sure they represent a really broad spectrum of the profession. It is evidence of how positively the pilot programme has been received.”

The pilot sites are also trialling a new self-care plan based on a traffic light system. A new care pathway is being tested which suggests methods of treatment for patients following a check up. This gives patients a rating of green, amber or red following an oral health assessment. They then get advice on how to improve their dental health in the long term.

The practices which have been shortlisted enjoyed their first taste of what life will be like if they join the pilot scheme as they took part in a training day held in Birmingham yesterday. The day was designed to make sure practices are confident to take on the challenges joining the programme will bring.

The list of shortlisted practices can be found at http://mediacentr.de.gov.uk/2013/01/23/shortlist-for-new-dental-pilot-practices-announced/
Editorial comment

Congratulations to the 29 new pilot practices gearing up to trial the new new contract for NHS dentistry. According to the Department of Health’s press release the second stage of this programme has been expanded to help test how the different elements of the new contract work together.

Up for testing includes different ways of remuneration; a new care pathway to tailor the treatment to a patient’s oral health condition and the IT framework required to make sure the pilots work smoothly.

Dust wears away ancient tooth enamel

A new study published, in the Journal of the Royal Society Interface, has revealed that quartz dust plays a big part in wearing away tooth enamel.

This suggests that scientists will now have to review what microwear, the pattern of tiny white marks on worn tooth surfaces, can tell us about the diets of fossil mammals, as environmental factors may have had a large effect on teeth. This is particularly the case in East African hominins, who may have suffered during dust storms.

During their research, scientists at the Max Planck Institute for Evolutionary Anthropology found that quartz particles could remove pieces of tooth enamel at very low forces, meaning that these particles could abrade much of the surface of the tooth if they are present in numbers.

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Surface of tooth with two large scratches covered by quartz particles

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AT W&H PEOPLE HAVE PRIORITY
Sugar and calories cut in soft drinks

L
eading soft drinks brands Lucozade and Ribena will reduce the amount of sugar and calories in their products by up to 10 per cent as part of the Government’s drive to curb obesity levels, Public Health Minis-
ter Anna Soubry announced.

Speaking at the Food and Drink Federation’s ‘Delivering Healthy Growth’ stakeholder event, the minister revealed the latest brands to sign up to the Responsibility Deal’s calorie reduction pledge. Ribena ready to drink and Lucozade Energy will reduce the amount of sugar and calories by up to 10 per cent; AG Barr, who produce Irnbru, will reduce the caloric content across their portfolio of drinks by five per cent; and J20 will launch two flavours in a new slim-line can which will represent a 10 per cent calorie reduction compared with their standard 275mL bottle.

The Public Health Responsibility Deal aims to tap into the potential for businesses and other influential organisations to make a significant contribution to improving public health by helping us to create this environment.

Public Health Minister Anna Soubry said: “Being overweight has said. It has been determined that will strenuously op-


Teeth whitening could be damaging, say researchers

A

ew study, published in the Journal of Dental Research, has found that high concentrations of hydro-
gen peroxide can have a dra-
matic impact on dental hard and soft pulp tissue.

The Brazilian research team were interested in seeing the effect whitening products with high concentrations (55 per cent) of hydrogen peroxide (H2O2) would have on teeth.

The researchers studied 56 teeth that were extracted from 10 men and 10 women, who were not tobacco users, had not received whitening treatment, had no gingival recession or restorations, and needed two to four first premolars extracted.

Half of the extracted teeth were whitened using 55 per cent hydrogen peroxide, and half were left without whitening treatment. The teeth were then sectioned, had their pulp removed and the dental hard tissues were frozen.

With the teeth that had received the treatment, both the enamel and dentin were affected.

“The bleaching agent containing 55 per cent H2O2 induced a significant in vivo alteration in enamel and dentin, which could potentially trigger biological and/or mechanical responses of dental structures”, the study authors wrote.

Despite reports that the use of bleaching agents at low concentrations has been con-
sidered absolutely safe, analysis of our data shows that the use of 55 per cent H2O2 as a bleaching agent...can be clinically adverse in the long-term and/or after recurring bleaching treat-
ments.”

The researchers recommend that hydrogen peroxide concentra-
tion should be reduced, the time of each application should be reduced, and reaction cata-
lyzers such as lamps or lasers should not be used.

“[It] is important to say that bleaching is not at all a danger-
ous procedure, but the dentists and the patients should know that sometimes the price paid by a purely aesthetic treatment may be too high at the end if the dentist is not sufficiently cau-
tious in applying the bleaching agents,” they concluded.

Accuracy of technology for placing implants tested

A

ew study compares the results of technolo-
gies for locating and measuring the anterior loop of the mental nerve with actual anatomic measurements on human cadavers.

A study reported in the Journal of Oral Implantology used three methods to measure the anterior loop of the mental nerve on 12 human ca-
davers—cone beam comput-
erised tomography (CBCT), a three-dimensional stereo-
lithographic model (STL), and anatomy.

The mental nerve follows a looping course around the jaw, communicates with the facial nerve and provides sensory innervation to areas of the chin and lower lip. In-
jury to the anterior loop of the mental nerve can cause sen-
sory disturbance, most nota-

ability numbness or altered sen-
ory perception.

Reports on the length and location of the mental nerve vary widely between patients. One study found the anterior loop in 28 per cent of the pa-
tients. However, another study reported it to be present 88 per cent of the time. Some cli-
nicians recommend maintaining a safety margin of 1mm between implants and the nerve, others suggest as much as a 6mm distance.

Because of conflicting reports, a variety of methods have been used to detect and measure the anterior loop. It has been determined that panoramic and periapical radiographs do not provide information about the loop that is reliable enough for clinicians to use in placing implants. This study seeks to determine the accuracy of CBCT and STL in identifying and measuring the anterior loop.

The CBCT was found to be accurate and reliable; howev-

er, the STL was found to sig-
nificantly both overestimate and underestimate the ante-
rior loop. Thus, the authors make the following recommenda-
tions:

• CBCT should be a prerequisite in identifying and measuring the anterior loop of the mental nerve for implant surgery.
• A fixed distance from the ment-


fearful for the Practice Allowance and removing Commitment payments to dentists.

Dr Peter Crooks, Chair of BDA Northern Ireland Den-
tal Practice Committee, said: “These proposals fail patients, undermine businesses and strike at the heart of den-
tists improving oral health in Northern Ireland.

“BDA Northern Ireland Dentists’ Practice Commit-
tee entirely rejects the pro-

posals and we urge dentists across Northern Ireland to join us in defending the health service dental care that pa-
tients count on.”

Further details of BDA Northern Ireland’s campaign against the cuts, and how you can get involved, includ-
ing details of what they could mean for practices and indi-
vidual dentists are available at www.bda.org/nicuts

BDA to fight Northern Ireland cuts proposals

The

British Dental Association (BDA) will strenuously op-
pose DHSSPS proposals for Health Service dental provi-
sion in Northern Ireland, it has said.

The proposals, published for consultation by the Department of Health, Social Services and Public Safety, will limit the Health Service care available to pa-
tients by moving to a core ser-
vice of treatments, restricting the frequency of scaling and polishing, moving to IOTN 5.5 for orthodontic treat-
m ents, changing the eligibility for the Practice Allowance and removing Commitment payments to dentists.

“I’m pleased to see the soft drinks manufacturers, like GSK, AG Barr and Britvic join Coca-Co-

la and PepsiCo to make some very real commitments to help con-

sumers cut down on their calo-

ries as they take control of their weight.”

“Hope we will now see others, including the leading soft drinks brands like Lucozade and Ribe-

na. This is an opportunity for the soft drinks industry to take a careful look at how they can build on this and come to the table with new commitments to encourage their customers choose smaller portions and swap to lower calorie options.”
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Bike Mike raises £1K for charity

Retired dental practitioner Mike Townsend cycled 140 miles in aid of the Benevolent Fund, which provides help to UK dentists who find themselves in financial difficulties.

Mike’s cycle ride was part of the BDA Benevolent Fund’s year-long campaign ‘Be Active for the Ben Fund’. Along with a partner, Mike cycled the Great Glen Way, which runs alongside Scotland’s Loch Ness in September 2012, and raised over £1,000 for the Fund.

Mike hopes that the ‘Be Active’ campaign will raise the profile of the BDA Benevolent Fund because dentists are no more protected from the problems of modern life than anyone else. They are just as likely to suffer from accidents, long-term illness and debilitating stress.

“Many dentists are at the end of their tether,” he continues. “A lot of them have got stress problems, mental health issues; some of them are suffering from serious illness, and an increasing number of these are much younger than they used to be. An increasing number of these applications come from dentists in their 50s and 40s. It’s worrying how young some of them are.”

“You don’t need to have been a member of the BDA to apply,” he stresses. “You just need to have been GDC registered at some point, or be the dependent of a dentist who has been on the register.”

A Guy’s Dental School graduate of 1968, Mike Townsend is no stranger to cycling. “I’ve done 50 miles of cycling in a day before but this was quite strenuous,” he says. “We took it easy and stayed in reasonable accommodation and just pedalled along enjoying the view - and the rain!”

Mike says they travelled light for the journey. “We took a small back pack, a toothbrush and a razor. If you’ve got to carry it, the last thing you want is too much kit, especially when you’ve got to pedal it uphill.”

To make a donation, visit www.justgiving.com/Mike-TownsendCycle140

Dentists set to inspire quitters in 50th No Smoking Day

Dentists are being urged to get involved in one of the UK’s longest standing health campaigns as it celebrates its 50th successful year.

The British Heart Foundation (BHF) is encouraging dentists to use the milestone anniversary of No Smoking Day as an opportunity to boost participation among patients by promoting quit aids in their practice and local support services available in their area.

The theme of the 2015 campaign will urge smokers to consider the financial benefits of quitting and ‘swap fags for swag’, on Wednesday 13 March.

No Smoking Day 2015 will officially launch on Wednesday 27 February giving smokers two weeks to see their GP or stop smoking adviser, tell their family and friends and stock up on quit aids such as patches and gum so they’re ready to ditch the cigarettes for good on No Smoking Day on Wednesday 15 March.

Dr Mike Knappot, Associate Medical Director at the BHF, said: “Dentists have always played a huge role in spreading the word about this long running health campaign and year on year they inspire people to take the first steps to a smoke free life.

“From guiding those who want to quit the right aids and resources, through to giving sensitive advice about the benefits of quitting, dentists are really well placed to make a real difference to the health of their patients.

“Whether it’s a raffle, a poster competition or simply handing out flyers, the end result is bound to benefit many and hopefully help people ditch their cigarettes for good.”

Dr Nigel Carter, chief executive of the British Dental Health Foundation, said: “It would seem patients are fully aware of the risks involved with smoking, yet many remain unaware of how it affects their oral health. While stained or yellow teeth are visible consequences of smoking, gum disease, tooth loss and even mouth cancer are some of effects they do not know about.

“Dental professionals most likely see a bigger proportion of the general population than any other healthcare team and are in the best position to educate them on what smoking does to teeth and gums. Smoking is still the main cause of mouth cancer, and with two thirds of smokers wanting to give up, No Smoking Day is the perfect opportunity for health professionals to encourage smokers to do so.”

Visit www.nosmokingday.org.uk for more information.

Link between depression and TMD

There is an ongoing debate about the role of psychological disorders symptoms as risk factors for temporomandibular joint (TMJ) pain. Previous studies have associated depression and TMD pain but large scale studies have not been performed. For a new study, published in The Journal of Pain, researchers evaluated more than 5,000 community subjects and found that those with depression and anxiety had increased risk for temporomandibular pain upon palpation.

Temporomandibular disorders (TMDs) are a subgroup of craniofacial problems and etiology is believed to be multifaceted. Tooth grinding, facial clenching and genetic factors may initiate TMD and bio-behavioral factors suggest an association between TMD pain and depression, anxiety and post-traumatic stress disorder.

In this study, the research team sought to estimate the relative risk of depressive symptoms and anxiety on TMD pain over five years. More than 5,000 subjects participated and underwent medical examinations, oral health assessments, health check interviews, and completed a psychiatric risk factor questionnaire. TMD pain was assessed from the oral health exams according to guidelines from the Academy of Orofacial Pain.

The investigators found that depressive symptoms were more strongly related to joint pain than muscle pain, and that anxiety symptoms were linked with muscle pain. The authors explained that depressive and anxiety symptoms may initiate muscular hyperactivity followed by muscle abnormalities and altered muscle mechanics, which can produce inflammation and cause muscle pain. They also suggested that TMD might be related to abnormal pain stimuli processing caused by abnormalities in the neurotransmitters serotonin and catecholamines.

In support of previous published research, the authors concluded there is a strong need to moderate relationship according to symptoms of depression or anxiety and signs of TMD.

Half of Scottish children have tooth decay

Half of primary one school children in some of the poorest areas of Scotland have tooth decay. This is according to figures released by the government, which also state that in wealthier areas, this number is one in five children.

Two MSP Alex Johnstone says that this high percentage of Scotland’s younger children is down to lack of dental health education.

“It’s a failure on the education side,” he commented. “It is symptomatic of the way the SNP has tried to say it has put more resources into improving access to dentists, while at the same time neglecting other areas of public health.”

Margie Taylor, Scotland’s chief dental officer said: “Children develop their oral habits at a very young age. It is important that parents remember their healthful habits and practices...to ensure their children enjoy a lifetime of beautiful smiles.”
Link between tooth loss and blindness in older men

Recent survey has shown that from 2007 to 2011, the number of people receiving emergency treatment following the consumption of energy drinks has doubled in the US, increasing from 10,068 to 20,783.

Due to the high amount of additives, such as caffeine, taurine, vitamins and sugars, high consumption of these drinks can lead to insomnia, migraines, seizures and heart problems.

Most of the cases were identified among patients aged 18 to 25, followed by those aged 20 to 29.

The authors of the report commented that: “Health professionals can discourage use of energy drinks by explaining that perceived health benefits are largely due to marketing techniques rather than scientific evidence. Because of the drinks’ widespread use, it may be beneficial for Emergency Department staff to inquire about use of energy drinks when assessing each patient’s use of medications or other drugs.”

Energy drinks serious health concern

The London Tooth Wear Centre invites you to visit

The London Tooth Wear Centre is a specialist referral practice in Central London offering an evidence-based approach to managing tooth surface loss.

Led by Professor Andrew Eder, Specialist in Restorative Dentistry and Prosthodontics, the Centre was established in response to an increasing number of patients presenting with tooth wear.

Professional help is available at The London Tooth Wear Centre® for consultation and treatment planning advice only or for comprehensive management of your patients’ tooth wear.

Re referral evenings are scheduled for: • Tuesday 12 February 2013 at 6.30pm • Tuesday 12 March 2013 at 6.30pm • Tuesday 9 April 2013 at 6.30pm

For further details and to book onto one of the referral evenings, visit www.toothwear.co.uk, email info@toothwear.co.uk or call 020 7486 7180. Spaces are offered on a first come, first served basis.

Xylitol lozenges ineffective in caries reduction

According to a study in the Journal of the American Dental Association, daily use of xylitol lozenges do not result in a reduction in caries among adults.

The team conducted the research due to conflicting past studies: “Some conclude that there is evidence for a caries-preventive effect of xylitol, and others indicate that the evidence is inconclusive”, they wrote.

For this trial, 601 participants aged 21 to 80 consumed five 1.0 gram xylitol or placebo lozenges daily for 55 months.

It was found that the xylitol lozenges reduced caries by 10 per cent, but the researchers concluded that this was not significant.

“The results of this clinical trial did not demonstrate a statistically significant reduction in 55-month caries incidence either in the primary analysis or in the secondary analysis that included all three sites”, the study authors concluded.