



Matt Mullin

Lab Tests: No Release of Lead From Dental Crowns

Following comprehensive analyses and testing by the ADA, scientists found “no detectable amount of lead released from the 102 porcelain–metal dental crowns evaluated even under extreme laboratory testing conditions.”

Scientists from the ADA Division of Science and the ADA’s Paffenbarger Research Center, PRC, analyzed porcelain powders (raw materials in the making of dental crowns) from various manufacturers and more than 100 finished porcelain-metal crowns produced in foreign and domestic labs.

Figurines and plates are among a number of porcelain items where lead can be found. A natural mineral and processed for use in dentistry, Feldspathic porcelain

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Venus Supra

VIP 2.1, Virtual Implant Placement Software BioHorizons announces the release of a cost-effective dental implant treatment planning solution, the VIP 2.1. This virtual implant placement software will allow dentists to confidently place implants and achieve predictable esthetic results. The VIP 2.1 offers a user friendly interface and performance enhancements that will reduce the

clinical challenges dentists face and provide improvement in postoperative outcomes. The software is compatible with most dental implant and scanning systems, self-process CT scan images, imports images directly into the program allowing the dentist to immediately begin treatment planning, and can easily integrate into any clinician’s practice. For more information visit biohorizons.com.

Evidence-Based Dentistry Web Site Debuts

Ebd.ada.org is the latest electronic tool by the ADA that facilitates access to a database of systematic reviews of oral health clinical information, among other things, all in one spot.

Key components of the evidence-based dentistry site feature single-page summaries of a systematic review that a dental team member should know when making treatment decisions. (Authors are practicing dentists specially trained in critical assessment of published studies.) Other components include clinical recommendations that provide evidence-based guidance on applications of current scientific evidence to patient care, according to a press release; a section where dentists can inform the ADA of their questions they’ve encountered while trying to treat their patients; and links to other resources including glossaries, databases, and tutorials.

“This is just a first step for ebd.ada.org,” said John S. Findley, DDS, ADA president. “We will continue to gather feedback to make sure the Web site provides the most clinically relevant and current information in a concise and user friendly manner for dental and health care professionals.”

A grant from the National Library of Medicine and the National Institute for Dental and Craniofacial Research (grant number Go8 LM008956), supports the Web site.



The benefits of osteoporosis medications greatly outweigh the risks of developing osteonecrosis of the jaw, said the ADA.

Brochure to Help Osteoporosis Patients

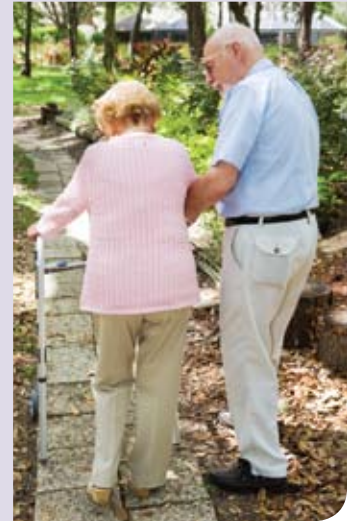
The ADA, in collaboration with the National Osteoporosis Foundation, developed a brochure, "Osteoporosis Medications and Your Dental Health."

The pamphlet was designed to help patients "separate fact from fiction," if they were perplexed about how their medications for osteoporosis affect their oral health, according to a press release.

"Patients who take bisphosphonates for osteoporosis are encouraged to talk to their dentist so that their dentist can show them good oral hygiene practices as well as monitor their oral health," says Matthew Messina, DDS, ADA consumer adviser and a general dentist based in Ohio. "Patients should not stop taking their osteoporosis medications without speaking with their physicians."

In patients who have taken these medications, some have developed bisphosphonate-associated osteonecrosis of the jaw, according to the brochure that explains that the condition is diagnosed in individuals who have no history of radiation therapy to the neck and head area, have an area of exposed bone in the jaw that persists for more than two months, and those who take or have taken a bisphosphonate medication.

The brochures will be available in dental offices or for purchase by dentists on the ADA's Web site, ada.org.



CROWNS, CONTINUED FROM 369

contains trace elements that occur organically in divergent concentrations, based on the refining process and source.

ADA scientists, in assessing for total lead content, fully dissolved the finished crowns and powders then measured the amount of lead remaining in the solution. Finding trace amounts of the naturally occurring element, the results ranged from below detectable to 113 parts per million (ppm) in the 44 porcelain powders and an average of 46 ppm in the 102 porcelain dental crowns.

Subsequently, but more significantly, researchers also tested the finished crowns under laboratory conditions far more intense than could occur in the mouth. The results: no measureable lead escaping from the porcelain crown, even at the limit of detection at 1 ppm and under accelerated acidic conditions at higher temps.

"Based on all the information to date, both from our own testing as well as reports of other analyses, we are confident

that no measurable levels of lead are released from dental crowns made from dental porcelain typical of available sources," explained Clifton Carey, PhD, administrative director, PRC, in a press release.

"Moreover," he added, "we intentionally added lead to a separate sample of dental crowns and found that even up to 500 ppm of lead levels, no measurable amount was released. This was a much higher total concentration than any laboratory-fabricated crown tested."

During the time when many products from China were under scrutiny about their lead-containing products, an Ohio woman wondered aloud about her problematic bridge that was manufactured there. In early 2008, the swirl of speculation prompted one local television station in Ohio to send her bridge to test for lead. Of the several Chinese-made dental crowns also scrutinized in the investigation, one returned as positive for lead. At the time of test-

ing, there was no accepted standardized method to determine the content of lead in dental materials as porcelain, and whether lead in dental crowns is released in the mouth, according to a press release.

In response to the news story, the ADA went into action contacting the Food and Drug Administration, the Centers for Disease Control and Prevention, and informing the public and member dentists in an effort to make everyone aware. The ADA also devised a way to measure the concentration of lead in sample crowns it had obtained from dental labs in the United States, China, and other countries. The test also measured whether lead was released from these crowns.

The ADA has posted the results on its Web site, ada.org, as well as shared its findings with the FDA (ada.org/prof/advocacy/fda_letter_090316.pdf) and CDC (ada.org/prof/advocacy/cdc_letter_090316.pdf).

Common Sense Will Help You Hold Onto Your Dollars and Cents

With more people, even those with decent health insurance, shouldering an even bigger share of their health care costs (i.e., deductibles, out-of-pocket, and copays), *Harvard Health Letter* editors consulted with its editorial board doctors to develop 12 cost-savings moves, all of which were published in its March issue.

Among the maneuvers to keeping more greenbacks in your wallet:

- Build a stable rapport with your primary care doctor. A physician familiar with you and your history is likely to give sound advice “take care of you in context,” according to the article.

- Reserve using the emergency department until after you have consulted with your doctor in person or via the phone.

- Being vigilant with taking prescribed meds, attending routine check-ups, and sticking to lifestyle changes for the better is great at managing chronic diseases and the costs associated with them.

- Allow your primary care doctor to

coordinate your care, even if insurance permits you to go directly to a specialist. This helps avoid unnecessary, potentially harmful testing and treatment duplication.

- After checking with your physician, opt for generics as they generally are less expensive than brand-name drugs. Many insurers charge a higher copay for nongeneric brands.

- Eschew ennui. Talk to your doctor about the length of time you’ve been taking this medication, whether it still works. If it doesn’t, by all means, stop taking it.

- Should your doctor order an expensive test, i.e., CT or MRI, ask why it’s needed and if it will make a difference in your treatment.

- Take care of your body by exercising, eating healthful foods, getting enough zzzzzzzzzs, and not smoking. These simple habits could reduce one’s risk for conditions requiring medical care.

For more information or to read the full article, go to: health.harvard.edu/newsletters/Harvard_Health_Letter/2009/March/12-ways-to-cut-health-care-costs.



Summit on Improving Access to Dental Care Held

More than 100 representatives from nonprofits, private companies and government agencies came together recently at a summit on the topic of dental care. The objective? To improve the oral health of populations in need.

“Both the private and public sectors are challenged to meet the needs of an ever-growing number of U.S. residents who cannot regularly access oral health care,” said John S. Findley, DDS, ADA president. “In many ways, this is a societal issue.

“We are very pleased with the success of the summit, which will serve as a milestone toward our common goal of improving access to dental care. The ADA firmly believes that practical solutions must come from a broad spectrum of stakeholders and then be implemented first among those populations at highest risk for oral disease and with the least ability to access care. We are committed to finding common ground and shared solutions to address the oral health needs of the most vulnerable among us.”

Participants at the event, convened by the ADA, ranged from health care policymakers, dental special interest groups, advocacy groups, federal agencies, and the dental industry to dental education and research communities, financing communities, including philanthropic organizations, safety net providers, third-party payers, and non-dental health care providers, as well as those in ADA leadership, dental volunteer leaders, and executive directors from state dental societies.

Stepping up the collaboration between the medical and dental communities, developing workforce strategies, strengthening dental delivery systems, and improving oral health literacy through social marketing were a few topics discussed.

“We are committed to finding common ground and shared solutions to address the oral health needs of the most vulnerable among us.”

JOHN S. FINDLEY, DDS



Denmark Bans Mercury-containing Products, Excludes Dental Amalgam

Following its Scandinavian brethren, Denmark was the latest country to put the kibosh on the sale of many mercury-containing products.

Denmark's move, which is expected to take effect this summer, and pending EU approval, was purely for environmental reasons. The government, in a press release, recognized that dental amalgam needs to remain available for certain applications.

The new law in Denmark pointedly excludes dental amalgam from prohibitive use in "permanent molar teeth where an amalgam filling will last longer than a plastic filling, and where there is no opportunity to keep the tooth dry, difficult cavity accessibility, particularly large cavities, or a large distance to neighboring teeth," according to a press release.

Honors

Arthur A. Dugoni, DDS, MSD, recently was awarded "Outstanding Achievement — Dental Educator," by the American Dental Education Association Gies Foundation for his vision, innovation and achievement.

"I am deeply humbled and honored to be selected (for this award)," said Dugoni. "Education has been my passion for more than 60 years. It has been a special privilege to be in dental education because educators affect all eternity, as those who are taught teach others."

He currently is president of the American Dental Association Foundation, the ADA's philanthropic branch, and has served as president of the ADA, the American Association of Dental Schools, and the California Dental Association.

Ernest Giachetti, DDS, has been recognized with the Arthur A. Dugoni School of Dentistry's 2009 Medallion of Distinction.

The award is the alumni association's highest honor and given to individuals who have made significant contributions to the Dugoni



**Arthur A. Dugoni,
DDS, MSD**



**Ernest Giachetti,
DDS**

School of Dentistry, research, dental education, or the community. Giachetti has served on the school's faculty for 42 years. Additionally, he volunteers with a small group of fellow alumni to provide a homemade cioppino dinner for the dental school's first-year students each July.

"To be recognized by the Dugoni School for doing what I love doing is incredible," said Giachetti. "It is one of the most significant and humbling honors I've ever received." He also maintains a private dental practice in Cupertino, Calif.

High Energy Drinks Are Highly Acidic, May Contribute to Tooth Erosion

Sports drinks offer a boost all right, but not probably not the kind you want. Dental researchers at New York University recently found that longtime consumption of sports drinks may increase tooth erosion.

Because of the drinks' levels of acid, the smooth, hard enamel coating becomes eroded with repeated exposure, seeping into the bone-like material below, weakening and softening the tooth. Severe tooth damage or even tooth loss, if left untreated, can occur. One in 15 Americans are affected.

"This is the first time that the citric acid in sports drinks has been linked to erosive tooth wear," said Mark Wolff, DDS, PhD, professor and chairman of the Department of Cariology and Comprehensive Care at New York University College of Dentistry, who led the study.

Slicing a cow's tooth in half, researchers soaked one half of the specimens in water, the remaining half in a top-selling sports drink. The two halves were later

compared and it was discovered that the one exposed to the sports drink showed a greater amount of softening and erosion.

"Five teeth were immersed in each drink for 75 to 90 minutes to simulate the effects of sipping on sports drinks over the course of the day," Wolff said, commenting that brushing one's teeth immediately after consuming a sports drink is not beneficial since softened enamel is susceptible to the abrasive properties of toothpaste.

"To prevent tooth erosion, consume sports drinks in moderation, and wait at least 30 minutes before brushing your teeth, to allow softened enamel to re-harden," Wolff said. "If you frequently consume sports drinks, ask your dentist if you should use an acid-neutralizing remineralizing toothpaste to help re-harden soft enamel."

Coinvestigators on the study included Michael Rice, an Arthur A. Dugoni School of Dentistry student; and Dr. Mitchell S. Pines, a clinical professor of Biomaterials and Biomimetics at the NYU College of Dentistry.



Social Interaction Difficult in Children With Cleft Lip and Palate

While children with cleft lip and palate may not experience more emotional problems than their counterparts, they are more likely to have difficulties with social interaction.

In a recent issue of *Cleft Palate — Craniofacial Journal*, a study did not find differences in emotional problems, conduct problems, or hyperactivity between a control group and a group of children with CLP. However, the study found that youths with CLP were six times more likely to report trouble with social interaction. Participants included 32 children and teens with CLP, and 34 of their counterparts as a control group. The youths ranged in age from 6 to 16.

The article, "Psychosocial Functioning and Sleep Patterns in Children and Adolescents With Cleft Lip and Palate (CLP) Compared With Healthy Controls," assessed sleep patterns, interactional competencies, and psychosocial functioning, in children with CLP.

The authors found, according to a press release:

■ Increased difficulties and degraded participation in everyday life due to the presence of CLP were expected. However, impaired psychosocial functioning was not observed in every aspect of the participants' lives. And while CLP subjects showed increased impairment in the general social environment, they did not show such behavior among their peers, friends, and family.

■ Sleep patterns were examined because psychological and sociocultural factors may negatively influence sleep. The data showed impaired sleep patterns associated with age, especially adolescence but not with the presence of CLP.

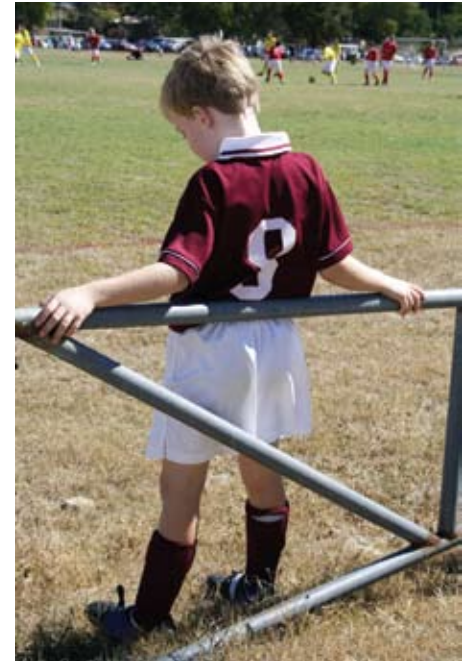
■ With increasing age, a weekend shift to a prolonged sleep period should be observable independent of CLP, meaning that a deviation from this expected sleep pattern could show underlying psychosocial causes. This shift was observed as a function of age, but again a differ-

While CLP subjects showed increased impairment in the general social environment, they did not show such behavior among their peers, friends, and family.

ence attributable to CLP was not seen.

Additionally, the authors discovered that interactional problems amplify as the child transitions to the teen years and that skill training to improve competencies in specific social settings may be beneficial.

To read the entire article go to allenpress.com/pdf/CPCJ46.2_10.1597-07-165.pdf.



UPCOMING MEETINGS

2009

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| Sept. 11-13 | CDA Presents <i>The Art and Science of Dentistry</i> , San Francisco, 800-CDA-SMILE (232-7645), cda.org . |
| Sept. 30-Oct. 4 | American Dental Association 150th Annual Session, Honolulu, Hawaii, ada.org . |
| Nov. 8-14 | United States Dental Tennis Association fall meeting, Scottsdale, Ariz., dentaltennis.org . |

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| April 11-17 | United States Dental Tennis Association, Amelia Island Plantation, Fla., www.dentaltennis.org . |
| April 26-28 | National Oral Health Conference, St. Louis, Mo., nationaloralhealthconference.com . |
| May 13-16 | CDA Presents <i>the Art and Science of Dentistry</i> , Anaheim, 800-CDA-SMILE (232-7645), cda.org . |
| Sept. 24-26 | CDA Presents <i>the Art and Science of Dentistry</i> , San Francisco, 800-CDA-SMILE (232-7645), cda.org . |
| Nov. 7-13 | United States Dental Tennis Association, Grand Wailea, Hawaii, www.dentaltennis.org . |

To have an event included on this list of nonprofit association continuing education meetings, please send the information to Upcoming Meetings, CDA Journal, 1201 K St., 16th Floor, Sacramento, CA 95814 or fax the information to 916-554-5962.