Maintenance is key to preventing burns with dental handpieces

The recent government warning about burns from electronic dental handpieces has prompted manufacturers to urge dentists to make sure the devices are properly maintained and serviced.

When used properly, the electronic handpieces pose no risk to patients and offer dentists performance advantages over older, air-driven models, but if electronic handpieces become worn down or clogged, they can overheat, putting patients at risk.

Ron Appel, vice president and general manager of Henry Schein’s repair business group, says the main cause of burns from electronic handpieces is unfamiliarity with how critical it is to maintain the devices properly, especially because most dentists in the U.S. are accustomed to handpieces that are air-driven.

Schein offers a certification program under which dentists can send their electrics to the company to make sure the instruments are running according to correct specifications.

Properly maintaining handpieces and periodically certifying their performance will reduce the risk of patients getting burned, Appel says.

Many American dentists are used to handpieces driven by an air turbine. Those handpieces, which are still the most popular models in the U.S. according to Schein, become sluggish when bearings and gears become worn, signaling to the dentist that repair or replacement may be necessary.

However, when an electric handpiece gets worn or clogged, its motor increases the power sent to its head to maintain performance. This increased power rapidly generates heat that can burn patients who may be anesthetized and not feel any discomfort until after they have been injured.

Appel says Schein has the largest dental handpiece repair business in the world. “In the U.S. alone, we repair upwards of 500 dental handpieces a day,” he notes.

“A small portion of those are electric handpieces. The reason is that electric handpieces still have a small market share in the U.S. But we believe that its share will steadily increase as the U.S. dentist becomes more familiar with the electric handpiece technology and realizes it has greater capability than typical air-driven handpieces.”

Adds Kent Eggleston, director of Henry Schein’s handpiece business, “The electric handpiece is basically a system that consists of a control box, a motor and attachments. What the dentist does is put on a different attachment, which is procedure-specific. This system is flexible, allowing the practitioner to perform a full range of procedures, from cutting tooth structure with a high-speed attachment all the way down to an endodontic file that oscillates at a very slow rate. So it gives you the full capability to do any type of dental handpiece procedure.”

As the largest practice-based dental supplier in the U.S., Henry Schein saw a need in the early 1990s to develop a service and repair business for the devices it sold. Appel says the dental handpiece “happens to be a perfect scenario where a repair service is required. If you sell the product, you need to service the product. Since dentists have dramatically increased the number of times they sterilize their handpieces, it has caused a dramatic increase in the amount of maintenance and repair work needed per dental handpiece.”

As electric handpieces grow in popularity—sales of the devices are currently growing at double-digit rates—and as more and more dentists switch from air turbine technology to electric, dental professionals need to be aware that electric handpieces also require increased vigilance and maintenance.

Eggleston stresses that much of the problem is related to education and training. “You have many people who have been air users converting over to electric,” he says. “A doctor who has been practicing for 10 years with air has no perspective, no idea that his handpiece can burn his patient. It’s foreign to him.”
Medical-dental dialogue examines issues

The New York Academy of Sciences recently hosted “a medical-dental dialogue on the relationship between periodontal disease and systemic health.”

The event was jointly sponsored by the academy in conjunction with the Columbia University College of Dental Medicine, the Columbia University College of Physicians and Surgeons, and the National Periodontal Disease Coalition...

Speakers analyzed possible links between periodontal disease and atherosclerotic vascular disease, adverse pregnancy outcomes and kidney disease, as well as the role of dental professionals in the diagnosis and management of patients with systemic diseases, and whether medical and dental education and practice need to be integrated more closely.

Although links between periodontal disease and other health problems are not always direct and clear cut, researchers see periodontal disease as a contributing factor for many health problems. In recent years, a number of studies have linked periodontal disease to atherosclerotic vascular disease.

Dr. Steven Shea, MD, Columbia University College of Physicians and Surgeons, outlined data from a multi-ethnic study on risk factors for subclinical cardiovascular disease.

ADA Foundation receives massive donation

The American Dental Association (ADA) Foundation has received 6 million shares of Suni Medical Imaging Inc. stock from Paul Suni, the company’s founder. On its website, ADA says it will use the stock to provide scholarships under the ADA Foundation’s student dental scholarship program.

The Suni scholarships, in contrast to traditional ones, will require applicants to show they are dedicated to the arts as well as to dentistry. Suni considers people involved in both the arts and the sciences to be especially valuable to society.

“For the past 15 years, it has been the dental profession that has supported my family and the families of Suni employees by purchasing products developed and manufactured by the Suni team,” ADA’s website quotes Suni as saying. “My emotional impetus for making a charitable contribution was to give back to the dental profession after a personally meaningful 20-year experience in developing enabling technologies for dentistry.”

ADA and UCLA decline to comment on possible lawsuit

The American Dental Association (ADA) and the UCLA School of Dentistry are declining to comment on reports that 15 students in the UCLA dental program have filed a lawsuit against the ADA in Los Angeles Superior Court.

The plaintiffs allege they were falsely accused of helping others cheat on a national dental exam. They are seeking financial compensation and a restraining order against disciplinary action while the cheating allegations are reviewed by ADA’s Joint Commission on National Dental Examinations.

The students could have their passing scores from the 2006 exam thrown out and be barred from retaking the test until 2009, according to an article in the Los Angeles Times.

On November 14, 2007, ADA issued a release saying its 15-member Joint Commission on National Dental Examinations (JCNDE) “routinely conducts investigations when it receives allegations about irregularities that might jeopardize the integrity of the National Board Dental Examinations.”

ADA’s statement that “investigations are conducted in a confidential manner and the JCNDE does not comment on allegations or investigations” was in response to published reports that it was investigating possible cheating by students at UCLA, as well as at other schools.