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Toward Optimal Health for All:

The American Dental Association Takes on Sugar and its Impact on Oral Health

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For 164 years, the American Dental Association (ADA) has been leading the national discourse on oral health. From advocating for critical legislation to improve health equity to driving the evidence-based insights that advance the profession, the ADA's endeavors are propelled by a fundamental commitment to making people healthy.

This commitment bears that, as a community of essential healthcare providers, the ADA has an imperative to be champions for overall wellbeing and to take a stand on issues that could impede the improvement of public health. It's an imperative we've lived up to.

Consider, for example, the stand the Association has taken on smoking and tobacco products, whose deleterious oral and systemic health effects are well known. Among many actions in recent years, the ADA has supported the regulation of e-cigarettes and synthetic nicotine products.

The Association also continues to guide clinicians in offering smoking cessation advice to their patients. A 2022 study in the *Journal of the American Dental Association* found that dentists' chairside counsel can be influential—smoking cessation advice from a dental team member is associated with an 18 percent increase in the number of times a patient tries to quit smoking.¹

The study is a nod to the great potential for dentistry (both as a professional community and as individuals) to be active partners, alongside medical colleagues, in helping patients achieve whole-body health. Oral health is integral to overall health—research reflects the relationship between oral disease such as periodontal disease and systemic conditions that include type 2 diabetes² and cardiovascular disease.³

Dental-medical integration in primary care is gaining prominence, and increasingly more dental students are being trained to have an innate sense of their contributions to a patient's overall wellbeing. In addition to seeing the importance of interdisciplinary collaboration, emerging professionals are understanding their role in not solely treating disease, but in actively promoting health, too.

Although dentistry is our area of expertise, the concern of whole-body health remains a key area of focus for the ADA as we meet our constitutional objective to encourage public health.

In 2023, the Association has a renewed opportunity to address a public health issue whose impact dentists see directly in their work—from caries to periodontitis, to the systemic conditions that have oral manifestations, like inflammation and diabetes. A common denominator the Association wants to address is the overconsumption of sugar.

The effect of sugar on a person's oral health is hardly a new frontier in dentistry. For many children, early lessons on caring for their teeth include brushing, flossing, and avoiding candy to avoid cavities. Yet, in patients of all ages, the overconsumption of sugar is continually associated with diseases that go well beyond the mouth. But the mouth is often where it starts, with the excessive intake of sugary beverages, sweet snacks, and processed foods.

In a 2012 article for *Nature*, authors Robert H. Lustig, Laura A. Schmidt, and Claire D. Brindis write, "Evolutionarily, sugar was available to our ancestors as fruit for only a few months a year (at harvest time), or as honey, which was guarded by bees. But in recent years, sugar has been added to nearly all processed foods, limiting consumer choice. Nature made sugar hard to get; man made it easy."⁴

Excessive sugar intake can also be tied to foods that are specifically marketed to consumers as good for them. Some yogurts, for example, can have as many as 32 grams of sugar per serving. For perspective, there are 39 grams of added sugar in a 12-ounce can of Coke.

In turn, the American Heart Association (AHA) reports that the average American consumes 77 grams of sugar a day⁵—well beyond the U.S. Food and Drug Administration's recommendation that people over age three have no more than 50 grams of added sugars a day.⁶ The AHA's recommendation is more conservative, suggesting that the daily intake of added sugars should be limited to 36 grams for men and 25 grams for women.

With its policies on diet and nutrition, the ADA, too, acknowledges the benefit of healthy diets that avoid added sugars as a step toward optimal oral health. We also recognize the value of professional education, public awareness, patient information, and continued research on nutrition's role in oral and overall health.

This year, the ADA is taking its work on diet and nutrition further with the establishment of the Presidential Task Force on Sugar, Nutrition, and Diet. Current members represent the ADA Board of Trustees, Council on Advocacy for Access and Prevention, Council on Governmental Affairs, Council on Scientific Affairs, along with general ADA membership. The group also includes experts on dietetics and endocrinology.

The Task Force was formed to review existing ADA policies on sugar, nutrition, and diet, and propose changes to expand the ADA's involvement with other healthcare stakeholders and facilitate dental-medical collaboration on the topic.

Last fall, the Biden-Harris administration hosted the White House Conference on Hunger, Nutrition, and Health—the first meeting of its kind in 50 years. As outlined during the conference, key actions of the national strategy include investing in creative research approaches regarding the relationship between nutrition, disease, and comprehensive health; advancing research on the prevention and treatment of diet-related diseases; and strengthening and diversifying the nutrition workforce.

The ADA Task Force's review of the White House strategy will help shape its recommended revisions to current ADA policy with the goal of further driving oral health, nutrition, and improved health outcomes.

Efforts like these are positioning the ADA to not only spearhead the national discourse on oral health, but to become a respected leader in shaping healthcare at large.

Just as vital as our collective efforts are the thousands of clinicians who have the individual power to help their communities—one visit and one patient at a time. This, too, is where we improve population health— by arming our patients with the knowledge that enables them to make informed choices.

We should remember the old adage: knowledge is power. Both knowledge and power can create a sense of agency and self-advocacy for patients. And a sense that—along with their dentist,

physician, and other healthcare providers—they are a member of their own healthcare team. And that their decisions, whether to try to quit smoking or to be more aware of their sugar intake, can bring them one step closer to being their healthiest selves.

Together, with the large-scale work of the ADA and other organizations, each step brings all of us closer to healthier communities, a healthier nation, and a healthier world.

The very publication of the Delaware Journal of Public Health helps to make this vision possible, with the platform it provides to inform its diverse readership on public health research, policy, practice, and education per its mission.

I'd like to thank the following individuals for providing this venue to highlight oral health's vital role in public health:

- Guest Editor Dr. Jeffrey Cole, who is a former ADA president and currently the program director of the General Practice Dentistry Residency Program at Christiana Hospital in Wilmington.
- Guest Editor Dr. Daniel Meara, current chair of the Commission for Continuing Education Provider Education and chair of Christiana Hospital's Department of Oral and Maxillofacial Surgery and Hospital Dentistry.
- Dr. Brian McAllister, current chair of the National Commission on Recognition of Dental Specialties and Certifying Boards and attending staff for the General Practice Dentistry Residency Program at Christiana Hospital.

Thank you for being among the Delaware dentists who are driving public health forward as clinicians, educators, and leaders.

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References

- 1. Yadav, S., Lee, M., & Hong, Y.-R. (2022, January). Smoking-cessation advice from dental care professionals and its association with smoking status: Analysis of National Health and Nutrition Examination Survey 2015-2018. *J Am Dental Assoc*, 153(1), 15–22. PubMed https://doi.org/10.1016/j.adaj.2021.07.009
- 2. Wu, C. Z., Yuan, Y. H., Liu, H. H., Li, S. S., Zhang, B. W., Chen, W., . . . Li, L. J. (2020, July 11). Epidemiologic relationship between periodontitis and type 2 diabetes mellitus. *BMC Oral Health*, 20(1), 204. PubMed https://doi.org/10.1186/s12903-020-01180-w
- 3. Zardawi, F., Gul, S., Abdulkareem, A., Sha, A., & Yates, J. (2021, January 15). Association between periodontal disease and atherosclerotic cardiovascular diseases: Revisited. *Frontiers in Cardiovascular Medicine*, 7, 625579. PubMed https://doi.org/10.3389/fcvm.2020.625579
- 4. Lustig, R. H., Schmidt, L. A., & Brindis, C. D. (2012, February 1). Public health: The toxic truth about sugar. *Nature*, 482(7383), 27–29. PubMed https://doi.org/10.1038/482027a
- 5. American Heart Association. (2022, Jun). How much sugar is too much? https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/how-much-sugar-is-too-much

Doi: 10.32481/djph.2023.04.003

6. U.S. Food and Drug Administration. (2022, Feb). Added sugars on the new nutrition facts label. https://www.fda.gov/food/new-nutrition-facts-label/added-sugars-new-nutrition-facts-label

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