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Finding the Truth

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Searching for the truth about health-related products, including prescription drugs, is like searching for the truth in presidential election-year rhetoric. Just as I am skeptical of election-year promises, I am skeptical about claims of product effectiveness and safety. Furthermore, I find some health-related television news reports, talk show advice, and product advertisements more confusing than helpful. I suppose the abundant, and often redundant, health-related information is widely transmitted because product manufacturers, marketing specialists, television news reporters and editors, and magazine publishers believe that Americans want up-to-date health news, even though such news may be incorrect, distorted, or distributed for commercial purposes. Perhaps they are right, and more news is preferred over no news. Despite the risk of information overload, I do want access to all health-related news just in case some of that news might help me to remain healthy.



As in political rhetoric, the truth in health-related news usually lies somewhere between reports of well-designed research projects, researchers' interpretation of data, and commercial sponsors' promotion and advertising. Unfortunately, the truth can be blurred by the way in which news reporters interpret and describe research results, and by the public's desire for immediate solutions to their personal health problems. Frankly, I find it hard to separate the truth from wishful thinking, half-truths, exaggerations, or outright false reports. The critical issue for me, and perhaps others, is finding enough truth within the available information to make good personal health decisions.

Recent reports about the harmful, and previously unknown, effects of some of the most often prescribed drugs have caused me to ask more questions whenever my physicians recommend a new drug or treatment option. Without doubt, I will in the future be a more discriminate consumer of health information in order to protect myself and my family from harm.

Like most people, I suspect, I rely on my health care providers to treat me appropriately and to prescribe only drugs that have been proven to be safe. Because I trust them, I follow their recommendations, often without questions. Even though my physicians stay informed about new drugs and treatment methods, they cannot see into the future and predict the harmful affects of previously assumed safe drugs. Therefore, I know that I must be an active, informed, and responsible partner in my personal health care.

A greater challenge to me and to other dental hygienists is verifying that the oral health care products we recommend and the treatment methods we use are safe for our clients and have been proven effective over time. For example, the American

Academy of Pediatrics has long recommended routine fluoride supplements for young children. Previously, fluoride supplements were thought to be safe for children beginning at two years of age. Because fluoride is now widely available to young children from numerous sources, the risk to children for ingesting too much fluoride has made it wise to delay fluoride supplementation. The Centers for Disease Control and Prevention currently recommends that fluoride supplements not be given to children younger than six years old. I hope pediatricians know about this change. Even more important, I hope dental hygienists are informing parents about the harmful effects of too much fluoride. Perhaps dental hygienists should pursue opportunities to collaborate with pediatricians and other health care specialists in providing safe and effective services.

Dietary counseling is another aspect of dental hygiene practice that requires a vigorous search for the truth, and regular knowledge updates. Since the United States Department of Agriculture's (USDA) Food Guide Pyramid was introduced in the United States a decade ago, most dental hygienists have accepted and used it as the foundation for counseling their clients regarding a health promoting diet, and when explaining the relationship between diet and good oral health. The Food Guide Pyramid was thought to provide the ultimate model for good nutrition and dietary habits. It didn't seem to matter that it was developed by the USDA with little input from public health experts. Moreover, lobbyists for the food industry were involved in shaping the Food Guide Pyramid and promoting it as the primary guide for good nutrition.

The USDA Food Guide Pyramid taught us that all fat was bad, and that carbohydrates were good, both of which have since been questioned by research. Given our country's increasing problem of obesity across all ages, experts are no longer recommending strict adherence to the Food Guide Pyramid. Instead, they are looking at a new and different model for fulfilling dietary requirements to meet health needs, while avoiding the extra calories that lead people to obesity.

The USDA's Dietary Guidelines for Americans offers more comprehensive advice than the Food Guide Pyramid because it must correspond to new research findings and is updated and revised every five years as required by law. The USDA Dietary Guidelines for Americans sets the standards for all federally funded nutrition programs, including the school lunch program. These guidelines are written jointly by the USDA and the United States Department of Health and Human Services. A 13-member panel made up of leaders in pediatrics, obesity, cardiovascular disease, and public health is currently revising these dietary guidelines and soliciting public input for the revised guidelines, scheduled to be published in 2005. While these 13 panelists also are subjected to intense lobbying by the food industry, the panel's goal is to create a dietary guide that is based on the best scientific evidence and is independent of business interests. Therefore, when providing dietary advice, dental hygienists would do well to select a guide that is based on sound research, rather than one that has been overly influenced by industry. Information about the Food Guide Pyramid and the USDA Dietary Guidelines for Americans is available on the USDA web site, www.usda.gov.

The truth about the value of another widely touted dietary practice, taking antioxidant supplements, vitamin A, C, and E, and selenium, has been challenged. The Cochrane Heptao-Billiary Group, a part of the Cochrane organization, has pooled the results of 20 years of research involving 170,000 people, and has published the results in the latest issue of *Lancet*. In short, this group of experts found vitamin A, C, and E supplements to be useless in preventing gastrointestinal cancers and did not recommend further studies to investigate their cancer-fighting effects. This report did add that selenium supplements taken to combat liver cancer need another look. As can be expected, not everyone accepts these recommendations, and we can expect to read and hear more research into the effects of antioxidants on health. The truth about the value of these and other dietary supplements is, indeed, hard to find.

Because of continuing confusion about the benefits and cancer-causing effects of hormone replacement therapy, the American College of Obstetricians and Gynecologists (ACOG) has issued new hormone therapy guidelines. The ACOG stresses that hormone replacement therapy is the best known treatment for menopause symptoms and recommends that doctors not withhold them from patients who might be helped by them. Now women must weigh the benefits against the possible harm of hormone replacements before beginning the therapy. Here again, available information is inconclusive and not very helpful to women who must decide whether or not to take hormones.

This issue of *JDH* includes a story in "Upfront" about the toxic effects of a well-known anti-inflammatory drug. The revelation of this drug's probable harmful effects makes me wonder about the toxicity of other prescription drugs. I wonder if enough clinical trials have been conducted and reported to assure us that other similar prescription drugs are safe. Millions of people will no doubt continue to search for conclusive information that will help them to decide whether to endure the

pain of degenerative diseases or to take other anti-inflammatory drugs believed to be safe. Unfortunately, the research into this matter is still inconclusive.

Other issues that are troubling include the rapidly rising number of cases of childhood asthma, tuberculosis, typhoid, and croup, a common childhood illness. Doctors are now recommending that elderly people retake the typhoid vaccination because their immunity to this infection may have expired. Many elderly people will find it hard to believe that typhoid is really a threat to them, since they've heard nothing about it for many years. In fact, some people are so unsure of the reliability of all health-related information that they doubt the safety of mass inoculation against any infection.

While I am interested in these examples of confusion and skepticism in today's health care delivery system, I am more interested in finding the truth about oral disease prevention and treatment. Recent reports about human gene-related research is providing potentially useful information about some of the most troubling oral health problems. In fact, the National Institutes of Health recently announced that it is possible to predict cleft lip and cleft palate in certain populations. In another promising development, scientists recently reported success in isolating human post-natal stem cells in the periodontal ligament, then implanting them into rodents where they differentiate into a mixture of periodontal ligament tissues. Also, the National Institute for Dental and Craniofacial Research (NIDCR) supports ORALGEN, a specialized database that contains molecular information pertaining to oral pathogens, including, *Actinobacillus actinomycetemcomitans*, *Fusobacillus nucleatum*, *Porphyromonas gingivalis*, *Prevotella intermedia*, *Streptococcus mutans*, and *Treponema denticola*. The ORALGEN database is available at www.oralgen.lanl.gov.

These major findings leave me wondering how and when the oral health care system will change to meet the oral health care needs of all Americans. A July 2004 report of NIDCR, "Assessment of the Dental Public Health Infrastructure in the United States," included some discussion of the role of dental hygienists in oral health care, but the executive summary of the report failed to mention dental hygienists. The full report does discuss the dental public health structure and its deficiencies, and it mentions dental hygienists as the logical practitioners to extend the reach of dental public health. This report pointedly discusses the deficiencies in dental hygiene education that will no doubt affect the extent to which dental hygienists can be used in existing public health programs. For example, dental public health officers are expected to have advanced degrees, while the majority of dental hygienists are educated at the two-year degree level. As for those with the baccalaureate degree in dental hygiene, the report describes them as receiving only minimal education in dental public health. The report calls attention to the fact that, in general, dental hygiene faculty have received very little formal instruction in public health. It also points out that dental hygienists with the baccalaureate degree may have a hard time pursuing a master of public health degree because of difficulty in transferring dental hygiene courses for credit. The report also discusses the limitations imposed on dental hygienists by the individual state dental practice acts. I found this report distressing because it failed to fully discuss the possibility of changing the conditions that tend to isolate dental hygienists in the private dental practice and discourage careers in public health. I was left wondering why this report left so many aspects of the dental health care system undisturbed. Most of all, I wondered what influenced writers of the report, and why they failed to discuss different practice models. The full report and summary of "Assessment of the Dental Public Health Infrastructure in the United States" are available at www.nidcr.nih.gov/NewsAndReports/ReportsPresentation/.

All of these instances and many others cry for honesty and truthfulness. Truth-telling is important in general health-related matters, but it is essential to finding effective ways of extending oral health care to those who need it the most. Without doubt, political rhetoric during election years will continue to distort the truth because of the influence of special interest groups. I hope that the rhetoric surrounding some of the most critical health care issues will be more truthful in the future than in the past. I must admit that whenever I read a major federal report and it fails to fully acknowledge and explore various options for future oral health care delivery, I'm not too hopeful. Yes indeed, finding the truth is an extremely difficult undertaking.