
Correspondence

SPIROMETRY VERSUS FLOW VOLUME INSPIRATORY AND EXPIRATORY LOOP

To the Editor: I would like to comment on the excellent CME article, "Vocal Cord Dysfunction: An Update" by Leslie M. Gimenez, MD, and Heidi Zafra, MD (*Ann Allergy Asthma Immunol.* 2011;106:267–275). I compliment the authors on the very thorough review and analysis of the literature.

I am concerned by the nomenclature they used in describing the physiologic analysis of intrathoracic or extrathoracic airflow limitation.¹ This must be done by flow volume loop analysis and not by a volume time plot or spirometry, as is referred to in the article. At all places where the word *spirometry* is used, a *flow volume inspiratory and expiratory loop* should be substituted.

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1. Gimenez LM, Zafra H. Vocal cord dysfunction: an update. *Ann Allergy Asthma Immunol.* 2011;106:267–275.

MOC CME PROGRAM

To the Editor: We wish to respond to the letter entitled *The Burdensome Maintenance of Certification Process* in the April 2011 issue of the *Annals* by Martin S. Dubravec.¹ To clarify, the chair of the American Board of Allergy and Immunology (ABAI) does not receive a salary for working for the board. A salary is paid to the president of the ABAI, which is \$94,000, not the \$98,000 per year indicated in his letter. The salary for this position is computed on it being one-third of a full-time position and based on Association of American Medical Colleges data for professors of medicine and pediatrics. Duties of the position include traveling to at least 12 meetings per year to represent the Board. These include the American Academy of Allergy, Asthma, and Immunology and American College of Allergy, Asthma, and Immunology annual meetings and those of the American Board of Medical Specialties and Residency Review

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Committee, as well as meetings with parent Boards as necessary. In addition, the president travels to the ABAI office to meet with staff. These meetings amount to approximately 1,428 hours of work per year. The president also spends, on average, 10 hours per week answering correspondence and participating in conference calls and performing other duties of the position. When all of this is taken into consideration, the president of the ABAI works an average of 35 hours per week. We thank Dr Dubravec for noting that on the ABAI Internal Revenue Service 990 filing this position was incorrectly stated to be 2 hours per week and an amended 990 form has been submitted to correct the error.

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1. Dubravec MS. The burdensome maintenance of certification process. *Ann Allergy Asthma Immunol.* 2011;106:351.

ALTERNATIVES TO CHLORINATED POOLS FOR THOSE WITH ASTHMA AND ALLERGIC RHINITIS

To the Editor: The recent review by Sacha et al¹ notes increasing age and total training time in a swimming pool as important risk factors for developing asthma.¹ Because chlorination remains the most common method of swimming pool disinfection, time spent at pools is a measure of chlorination byproduct exposure. A case series further illustrates this: nonswimmers in an indoor pool environment developed symptoms of occupational asthma because of airborne nitrogen trichloride.² Given this information, we believe allergists and their patients should be aware of possible alternatives to chlorinated pools. Specifically, we are aware of saltwater and copper-silver ion pools.

Regarding airway disease, most data available regard copper-silver ion pools. In Belgium, swimmers who attend copper-silver ion pools have served as a population to determine the effects of chlorination on asthma, allergic rhinitis, and alveolar permeability.^{3,4}

One study, comparing swimmers from chlorinated with those from copper-silver pools, found increased risk of asthma and allergic rhinitis associated with chlorinated pool attendance.³ In another comparative study between chlorinated and copper-silver pools, swimmers in chlorinated pools had elevated levels of surfactant-associated proteins A and B (SP-A and SP-B), whereas swimmers in the copper-silver pools did not.⁴ This study notes that swimmers who showed elevated SP-A and SP-B levels had previously been shown to have an increased risk of having asthma.

These studies suggest that copper-silver disinfection method may decrease the risks of asthma and allergic rhinitis seen with chlorinated pool exposure.

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Although no formal studies compare effects of chlorinated and saltwater pools, 1 study assessed effects of swimming in seawater in nonasthmatic athletes.⁵ Non-elite swimmers showed an insignificant increase in baseline neutrophilia but no change after swimming activities. Also, baseline eosinophilia was no different from that of controls and did not significantly rise after swimming. They note that baseline airway neutrophilia may be a consequence of elite endurance training as has been previously observed, and baseline airway eosinophilia may be a consequence of training in indoor chlorinated pools.

Further study is needed to determine the relative risks of asthma and allergic rhinitis caused by copper-silver and saltwater pool exposure as compared with chlorine pool swimmers. However, early data suggest that copper-silver or saltwater pools might be alternatives for those unable to tolerate exposure to indoor chlorinated pools.

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