

Book review

Taming asthma and allergy by controlling your environment: A guide for patients By Robert A. Wood, MD, Baltimore, Asthma and Allergy Foundation of America-Maryland Chapter, 1995, 176 pp.

The primary objective of this book, co-sponsored and sold (\$15.00) by the Asthma and Allergy Foundation of America, Maryland Chapter and the Asthma and Allergy Foundation of America, national office, is to inform the patient with allergies about allergen avoidance and environmental control. It is well organized, and I highly recommend it.

Five clinical scenarios, in which environmental control has an impact on the health of patients with allergic disease, are included in the first chapter. These case presentations are followed by Part 2, composed of six chapters on "Allergies and Allergens." It familiarizes the reader with common allergens from six main geographic areas. Unique environmental allergen areas, such as subtropical Florida, are not discussed.

Part 3, entitled "Allergen Avoidance and Environmental Control," is the "nuts and bolts" of the book. It includes a chapter entitled "A General Approach to Environmental Control" and discussions on control of mite, animal, cockroach, mold, and pollen allergens and allergens in the school and workplace.

Part 4 includes four chapters, "The Importance of Irritants," "Indoor Air Pollution," "Sick Building Syndrome," and "Environmental Illness and Multiple Chemical Sensitivity." The author states that "Relatively little scientific information is avail-

able on this problem ["Sick Building Syndrome"], however, and a great deal of controversy and confusion surrounds it." I agree! However, in the chapter's summary, he states, "Building-related illnesses are common and important." These two statements will confuse the interested reader. In reality, very few buildings cause illnesses, whereas many have been associated with different subjective complaints from occupants of so-called "sick" buildings.

Part 5, "Product Reviews and Miscellaneous Topics," covers a variety of different subjects. The chapter "One Hundred Steps to Effective Environmental Control" lists too many environmental control modalities. I would much rather see a list of the most important versus the least important. Although a glossary is included, there are no references. A short list of good references would have been helpful and would give the book more scientific credibility.

This excellent book is practical, useful, and timely and will certainly help patients understand their allergic disease and appropriately institute environmental control. Physicians would be wise to recommend it to their patients.

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Skin testing with foods

To the Editor:

The brief communication by Rosen et al. (*J ALLERGY CLIN IMMUNOL* 1994;93:1068-70) provides a welcome and needed endorsement of skin testing with natural foods as an acceptable and necessary tool in our repertoire. However, the authors entirely ignore any consideration of the alternative methods, with their relative benefits or shortcomings. There is no question that the commercially available food allergen extracts can fail to identify patients with bona fide allergic reactions to foods. The sensitivity of the test depends on many factors, especially the characteristics of the extract, which must contain all the relevant allergenic activities when manufactured and when finally used for patient testing.

Clinical factors might also affect the test results, particularly the age of the patient and the clinical pattern of reaction (history). Best studied are children with eczema and patients of all ages with anaphylaxis, both of whom show prominent reactivity when prick or puncture tests are performed. However, there is an even larger number of patients (mostly adults) who report milder but still classic systemic reactions to foods (immediate hives, cramps, diarrhea, itchy face and throat, mild dyspnea). It is possible that these patients with less severe reactions (as well as a few of the more dramatic reactors) frequently have negative prick or puncture test results simply because of the unpredictable and probably inadequate allergen content of some food extracts and their inability to detect the relatively lower but still clinically active sensitivities.

It is clear in clinical practice that intradermal tests performed with reasonable extract concentrations (1:5000 to 1:1000 wt/vol) can identify some such individuals when the prick or puncture test result is negative. For all the "bad rap" given to intradermal tests, there are many examples of this method having acceptable specificity when appropriate concentrations are used, and acceptable safety when puncture tests, or very low concentration intradermal (1:100,000 wt/vol) tests, are done first and results are negative. Most importantly, such is the case with tests for other systemic sensitivities, such as those for penicillin and Hymenoptera venoms. It remains important to point out that in all these examples, the "gold standard" is diagnostic challenge.^{1,2}

Although the intradermal test, even at reasonable extract concentrations, can show positive responses in a significant number "history negative" individuals, this observation has been demonstrated to reflect asymptomatic sensitization (with true allergen-specific IgE antibodies) rather than being "false-positive," which would imply a non-IgE mechanism of skin reactivity.^{3,4} Intradermal tests with foods have correlated well with food history and with puncture skin test sensitivity to inhalant

allergens.⁵ The possibility remains, as suggested by the authors, that no test method will succeed with certain reagents because of the inherent instability of specific and clinically relevant allergenic proteins. Obviously, if intradermal skin test results (as described above) are negative, it would then be reasonable and necessary to skin test any patient who had suspicious reaction with the natural food. However, it is also more practical in clinical practice to test at the time of initial evaluation, when the puncture test result is negative, by using an intradermal test with a 1:100 dilution of the extract used for puncture testing (which is usually 1:20 to 1:40 wt/vol, diluted to 1:2000 to 1:4000 for intradermal use). If the response to the suspected food is clearly positive, it may obviate the need to have the patient make another visit for testing with the natural food. Negative and positive controls for the patient and the extract are always recommended.

The authors should also comment on the role of in vitro methods (RAST) in patients with negative skin test results. It is unfortunate that the authors could not report on the intradermal reactivity or RAST evaluation of the patients whose skin test results were negative with commercial extracts but positive with natural foods. Until more purified, standardized, and stabilized preparations of food allergens are available, the clinician must continue to make the best of the available reagents and methods, which must now include skin testing with natural foods when indicated.

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