



Skin Testing Techniques for Immediate Hypersensitivity Reaction

There are multiple techniques for allergy testing, including in vivo and in vitro modalities, available to confirm or identify aeroallergen allergic disease as well as the level of sensitivity. It is important to have a technique that is standardized with the use of appropriate controls to be reproducible, sensitive, and specific.

Skin testing techniques for immediate and delayed sensitivity are of vital importance and the mainstay of testing to identify and confirm allergic disease.

- 1. Scratch Testing** is a technique that is less sensitive, more painful, not reproducible, and not recommended for diagnostic testing.¹
- 2. Prick Testing** Prick and intradermal testing are the preferred techniques for IgE-mediated hypersensitivity with the use of a relatively non-traumatic introducer device. Reproducible results need to be obtained based on the location of testing on the body, potency of allergen extracts, and the proficiency of the skin tester.²
- 3. Intradermal Testing** both single intradermal and intradermal dilutional testing is a specific and likely more sensitive means to detect sensitivity, compared to prick testing.¹
- 4. Modified Quantitative Testing** is an accurate and more cost-effective method of testing than intradermal dilutional testing while still obtaining quantitative results.^{3, 4} The use of quantitative testing aids in improving patient care by facilitating the accurate diagnosis of aero-allergen disease.

Prick tests are used to confirm clinical sensitivity induced by aeroallergens, foods, some drugs, venoms and a few chemicals. Prick tests are widely used for confirmation of clinical immediate hypersensitivity induced by a wide variety of naturally occurring allergens such as inhalants and foods.²

¹ Trevino, RJ. *The importance of quantifying skin reactivity in treating allergic rhinitis with immunotherapy.* ENT Journal, May 2000; 79(5): 364.

² Bernstein, L. et al. *Allergy Diagnostic Testing: an updated practice parameter.* Annals of Allergy, Asthma, and Immunology 2008, Volume 100, Number 3, Supplement 3. S15-S29.

³ Krouse, JH. *Skin Testing for inhalant allergy 2003: current strategies.* Oto-HNS Journal, October 2003; 129 (4 Suppl): 33-49.

⁴ Council on Scientific Affairs. *In vivo diagnostic testing and immunotherapy for allergy. Report I, Part I, of allergy panel.* JAMA 1987; 258(10): 1363-7.

Note: American Academy of Otolaryngic Allergy's (AAOA) Clinical Care Statements attempt to assist otolaryngic allergists by sharing summaries of recommended therapies and practices from current medical literature. They do not attempt to define a quality of care for legal malpractice proceedings. They should not be taken as recommending for or against a particular company's products. The Statements are not meant for patients to use in treating themselves or making decisions about their care. Advances constantly occur in medicine, and some advances will doubtless occur faster than these Statements can be updated. Otolaryngic allergists will want to keep abreast of the most recent medical literature in deciding the best course for treating their patients.