



Medicines to Avoid Before Allergy Skin Testing

The American Academy of Otolaryngic Allergy (AAOA) has developed this clinical care statement to assist healthcare providers in determining which medicines patients should avoid prior to skin testing. These medicines are known to decrease or eliminate skin reactivity, causing a negative histamine control. Providers should have a thorough understanding of the classes of medicines that could interfere with allergy testing. With proper patient counseling, the goal is to yield interpretable skin results without unnecessary medicine discontinuation.

Antihistamines suppress the histamine response for a variable period of time. In general, first-generation antihistamines can be stopped for 72 hours, however, several types including Cyproheptadine (Periactin) can have active histamine suppression for up to 11 days. Second-generation antihistamines also suppress testing for a variable length of time, up to 7 days. Astelin (Azelastine) nasal spray has been shown to suppress testing for up to 48 hours.^{1, 2, 3, 4, 5, 6, 7}

Short-term oral corticosteroids (30 mg daily for a week) do not suppress skin testing.⁸ There is a difference of opinion about the effects of long-term or relatively high-dose steroids, i.e. greater than 20 mg of prednisone per day, on the suppression of immediate skin tests.^{9, 10}

Topical glucocorticosteroids can block the histamine response.^{11, 12, 13} Application of potent topical steroids have been shown to stop the histamine response for up to three weeks.¹⁴

Tricyclic antidepressants can suppress the antihistamine response from 7 to 14 days depending upon the type.^{15, 16}

Benzodiazepines should be discontinued for 7 days before the testing and include clonazepam, diazepam, lorazepam, and midazolam.¹⁵ Alprazolam has also been shown to inhibit skin testing.¹⁷

H2 blockers have the potential to suppress histamine skin reactions for up to two days and include cimetidine, ranitidine, and famotidine.^{18, 19}

Beta blockers are a risk factor for more serious and treatment resistant anaphylaxis, making the use of beta blockers a relative contraindication to inhalant skin testing.

Treatment with omalizumab (anti-IgE antibody) can suppress skin reactivity for up to six months.^{20, 21}

Topical calcineurin inhibitors have a variable affect. Pimecrolimus²² did not affect histamine testing but tacrolimus¹² did.

Herbal products have the potential to affect skin prick testing. In the most comprehensive study,²³ using a single-dose crossover study, it was felt that common herbal products did not significantly affect the histamine skin response. However, complementary and other alternative medicines do sometimes have a significant histamine response²⁴ and included butterbur, stinging nettle, citrus unshiu powder, lycopodium lucidum, spirulina, cellulose powder, traditional Chinese medicine, Indian ayurvedic medicine.

Leukotriene receptor antagonist did not affect skin testing.^{25, 26, 27}

Selective serotonin reuptake inhibitors (SSRIs) do not affect skin testing.^{15, 28}

Selective norepinephrine reuptake inhibitors (SNRIs) and proton pump inhibitors (PPIs) are felt not to need to be discontinued.¹⁵

Cyclosporin did not affect skin histamine response.²⁹

ACE inhibitors did not affect histamine skin response.³⁰

Healthcare providers should take into consideration that many of these studies are done when the patient is taking one pharmaceutical agent for a short time. It is unclear, if a patient is taking multiple pharmaceutical/herbal agents that alone have a minor effect, whether the combination of these drugs could suppress the histamine response. Therefore, it is imperative that the provider have a positive skin histamine response before proceeding with diagnostic skin testing.

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Suppressant Effects of Drugs on Immediate Skin Tests*

MEDICATIONS	MEAN DAYS SUPPRESSED	MAX DAYS SUPPRESSED
First Generation Antihistamines ¹	2	5
Second Generation Antihistamines	2	7
Antihistamine Nasal Sprays	0	1
Antihistamine Eye Drops	0	1
Tricyclic Antidepressants and Tranquilizers		14
Histamine ₂ Antihistamines (H ₂ Blocker)	0	2
Topical Corticosteroids		Up to 21

Medications that DO NOT Need to be Stopped Prior to Allergy Skin Prick Testing*

Angiotensin-Converting Enzyme (ACE) Inhibitors	Benazepril Captopril Enalapril Lisinopril Perindopril Quinapril Ramipril
Immunosuppressant	Cyclosporin
Nasal Steroid Sprays	Beclomethasone Dipropionate Nasal Budesonide Nasal Ciclesonide Nasal Fluticasone Propionate Fluticasone Furoate Nasal Mometasone Furoate Nasal Oxymetazoline Triamcinolone Acetonide
Norepinephrine Reuptake Inhibitors (SNRIs)	Duloxetine Venlafaxine
Protein Pump Inhibitors (PPIs)	Esomeprazole Lansoprazole Omeprazole Pantoprazole Rabeprazole
Serotonin Reuptake Inhibitors (SNRIs)	Citalopram Escitalopram Fluoxetine Paroxetine Sertraline

*See prior references¹ Some exceptions see prior references

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