

# Allergy and Immunology

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# Allergic Rhinitis

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- **Nasal symptoms:** Rhinorrhea, congestion, sneeze, itch
- **Eye symptoms:** Watery, red, itchy
- **Itching** of palate and ear canals
- **Not cough:** If coughing, asthma is more likely
- **Rare under age 4**

# Aeroallergens

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- **Pollens:** Grasses, trees, weeds (not flowers)
- **Spores:** Molds
- **Animal Danders:** Cat, dog, or any other furry animal
- **Dust mites**

# Clinical Evaluation of Allergic Rhinitis

## ■ History

- Symptoms include sneezing, rhinorrhea, nasal congestion, and itchy eyes.
- Symptoms may be seasonal
- Symptoms may be triggered by specific substances
- Family history usually is significant for atopy (ie, allergic rhinitis, asthma, atopic dermatitis)
- T cell controlled atopy

# Allergic Rhinitis: Physical Exam

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- The exam is usually normal.
- Periorbital venous congestion may appear as "shiners."
- A transverse nasal crease may result from repeated rubbing of the nose.
- Pale, boggy turbinates
- These findings are not specific for allergic rhinitis.
- Polyps should be excluded
- A trial of nasal decongestant trial should be completed

# Allergic Rhinitis: Skin Testing

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- Appropriate allergens
- Controls: positive and negative (antihistamines suppress skin test reactivity)
- Interpretation: A positive skin test does not necessarily equal allergy

# RAST

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- **Disadvantages:** Less sensitive than skin testing, expensive, time-consuming
- **Advantages:** Not affected by medication or dermatitis.

# Allergic Rhinitis: Environmental Control

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- Cats, dogs, other furry pets should be removed from the home or kept outside, or at least out of bedroom.
- House dust mites: Vacuum regularly (not by patient), mattress and pillow encasings, hot wash bedding.



# Treatment of Allergic Rhinitis

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- **Antihistamines** are effective for rhinorrhea, sneeze, itchy nose and for itchy, watery eyes.
- **Decongestants** are effective for congestion.
- **Combination** agents are available.
- Medications can be used on an as need or regular basis.

# Side Effects of Medications

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- **Antihistamines:** Sedation, impaired performance, cardiac arrhythmias
- **Decongestants:** Insomnia, hypertension

# Immunotherapy for Allergic Rhinitis

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- Immunotherapy is a form of immunization. It is not a cure.
- Progressive dose schedule
- Time commitment
- Side effects: local, systemic
- Physician present
- Not a substitute for environmental control
- Avoid "quack immunotherapy"

# Non-Allergic Rhinitis

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- Chronic nasal symptoms not caused by allergies.
- Usually characterized by congestion and post nasal drip.
- Usually not associated with sneezing, nasal pruritus, or eye symptoms.
- Rhinorrhea (vasomotor rhinitis) may be present.
- Allergic rhinitis and non-allergic rhinitis often coexist.

# Treatment of Non-Allergic Rhinitis

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- **Environmental control:** Elimination of smoke, fumes, and other irritants.
- **Intranasal steroids** are primary treatment.
- **Nasal ipratropium** is a second choice.

# References

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- Druce HM, Allergic and nonallergic rhinitis. *Allergy Principles and Practice*, Fourth Edition, Mosby, 1993, Vol. II Chap. 55:1433-1453.
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