SPRING INTO ACTION: Managing Allergies & Asthma in School Settings

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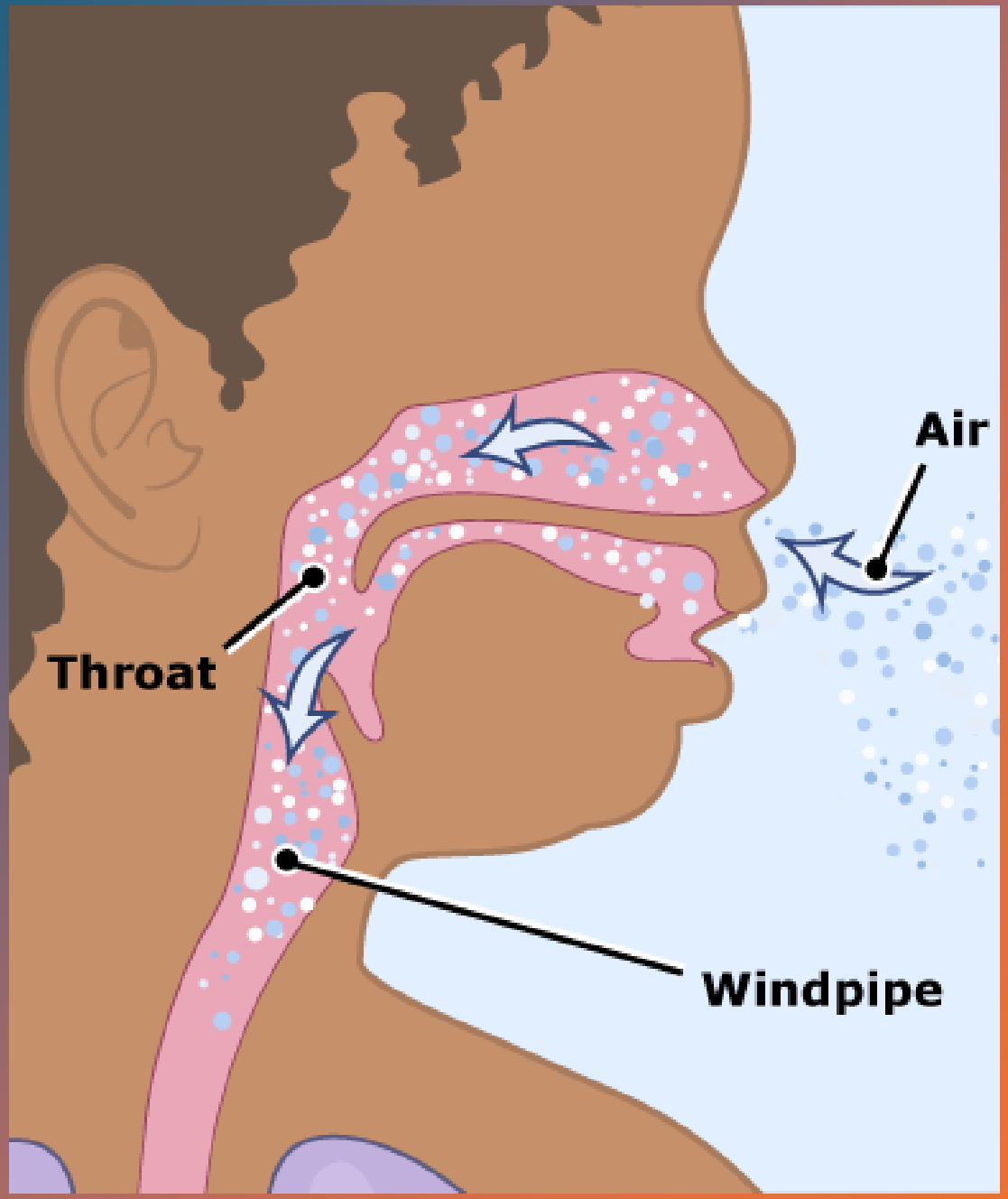
Objectives

Why is the Nose Important to How We Breathe?

Resource: Cartoon Videos Available at Asthma Ready Communities

https://youtu.be/XGfTMxK94ug?si=L5a0gXkbmdKhd_8g



The Nose: The Filter to the Lungs

- **First Line of Defense:** Warms, moistens, and filters air before it reaches the lungs.
- **Allergy Connection:** Inflammation from allergies (like pollen) causes nasal congestion, sneezing, and mucus buildup.
- **Asthma Impact:** Swelling and irritation in the nose can spread to the lower airways, triggering asthma symptoms.
- **Why It Matters:** Managing nasal allergies helps prevent asthma flare-ups and keeps airways clear.

What are Common Triggers and Symptoms?

Triggers and Symptoms of Allergies

- **Common Triggers:**
  - Pollen from trees, grass, and weeds
  - Mold spores
  - Dust and dander (aggravated by open windows)
- **Symptoms:**
  - Sneezing, runny or stuffy nose
  - Itchy, watery eyes
  - Coughing and sore throat

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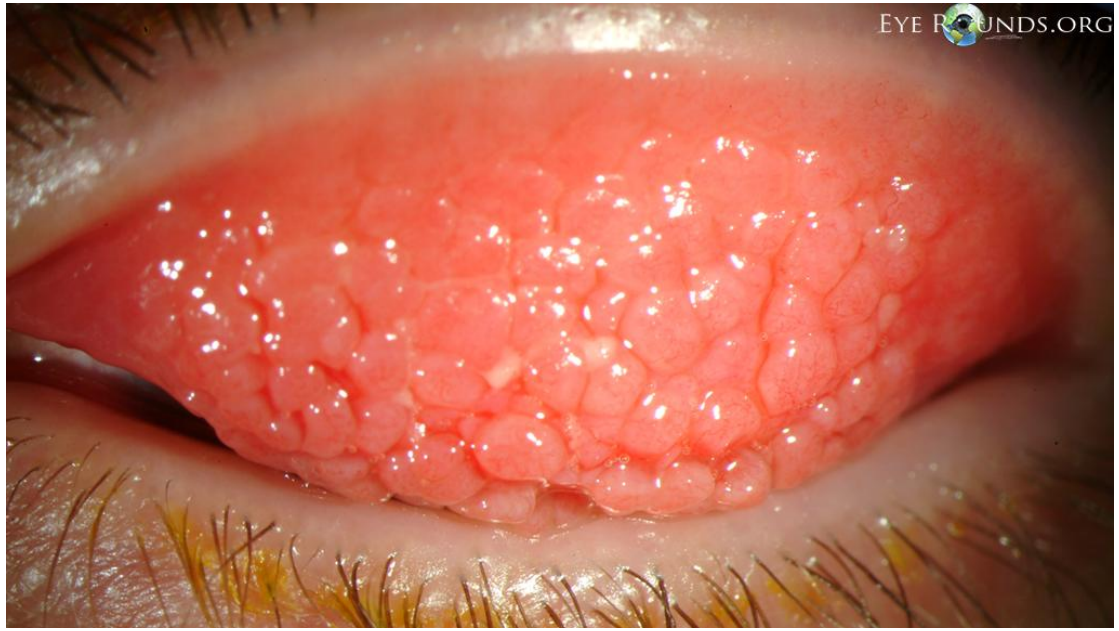
Physical Exam

Allergic Shiners

Allergy Eye Symptoms

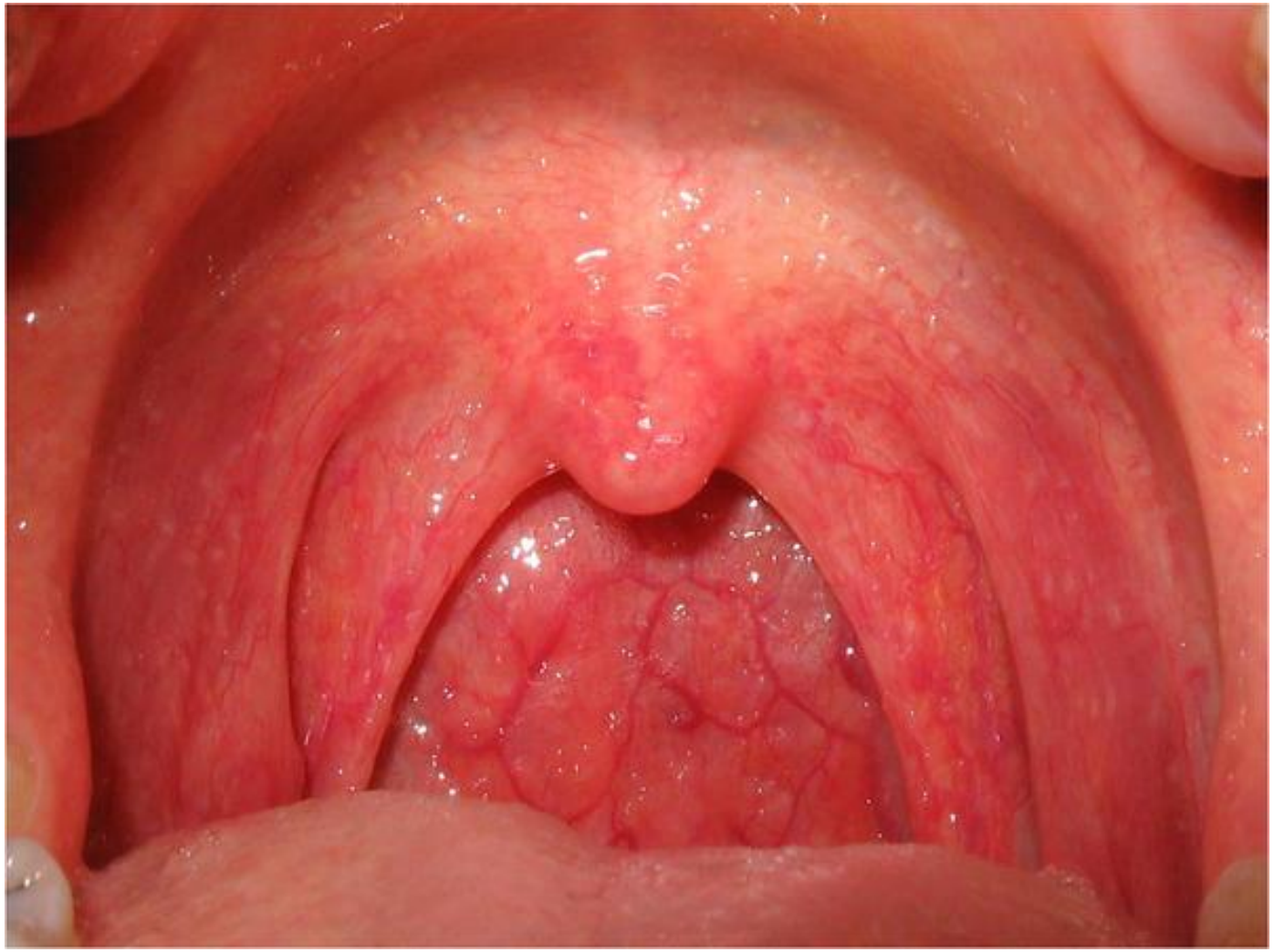
Allergic Conjunctivitis

Cobblestoning



Atopic (Dennie-Morgan) Pleats

Pharyngeal cobblestoning



What is the Connection between Allergies & Asthma?

The Asthma-Allergy Connection

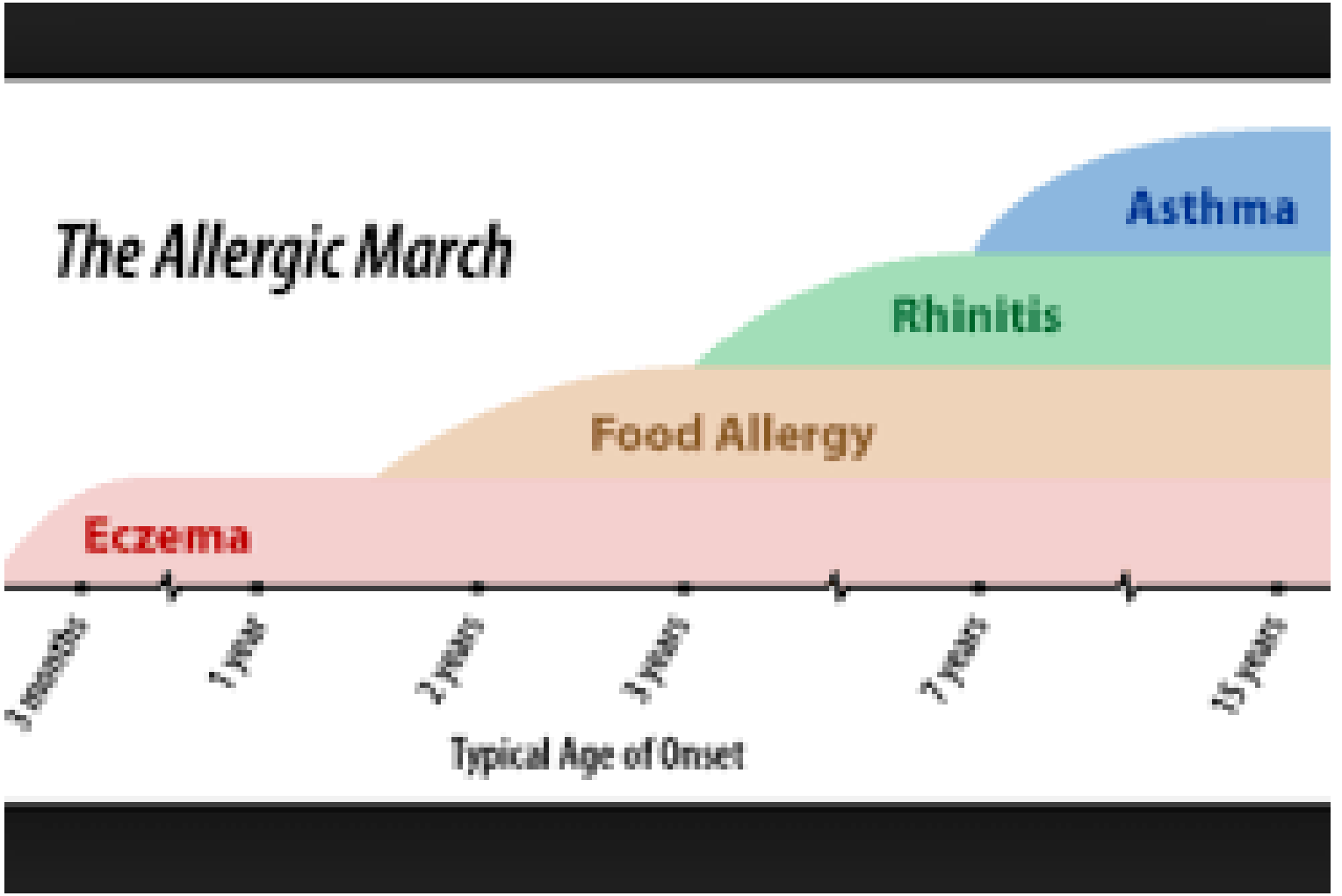
Allergic Asthma:

- Most common form of asthma in children
- Triggered by allergens like pollen, mold, and dust mites

Symptoms:

- Wheezing, shortness of breath
- Chest tightness
- Increased coughing, especially at night or during exercise

Allergic March



How are Allergies Treated?

In this order:

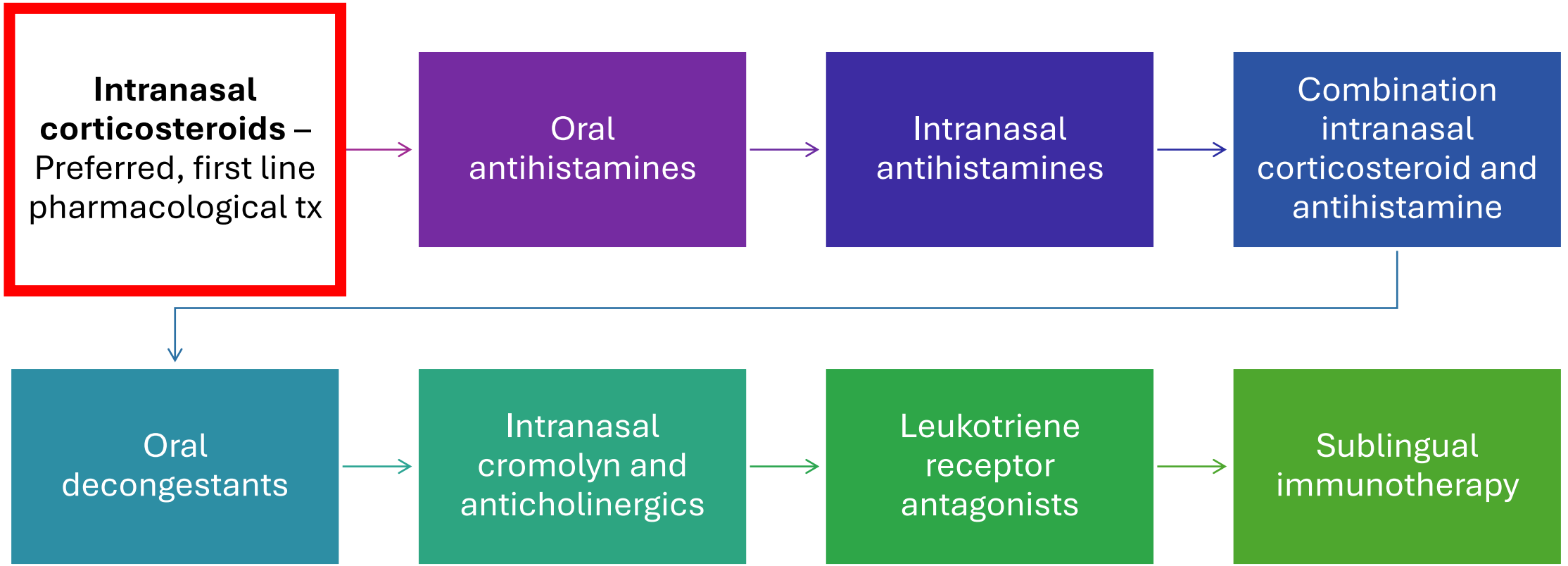
***Avoidance* 1st line of therapy**

- Replace feather bedding, encase bedding w/ dust mite allergies, family pet – very difficult

Pharmacological tx is Step 2

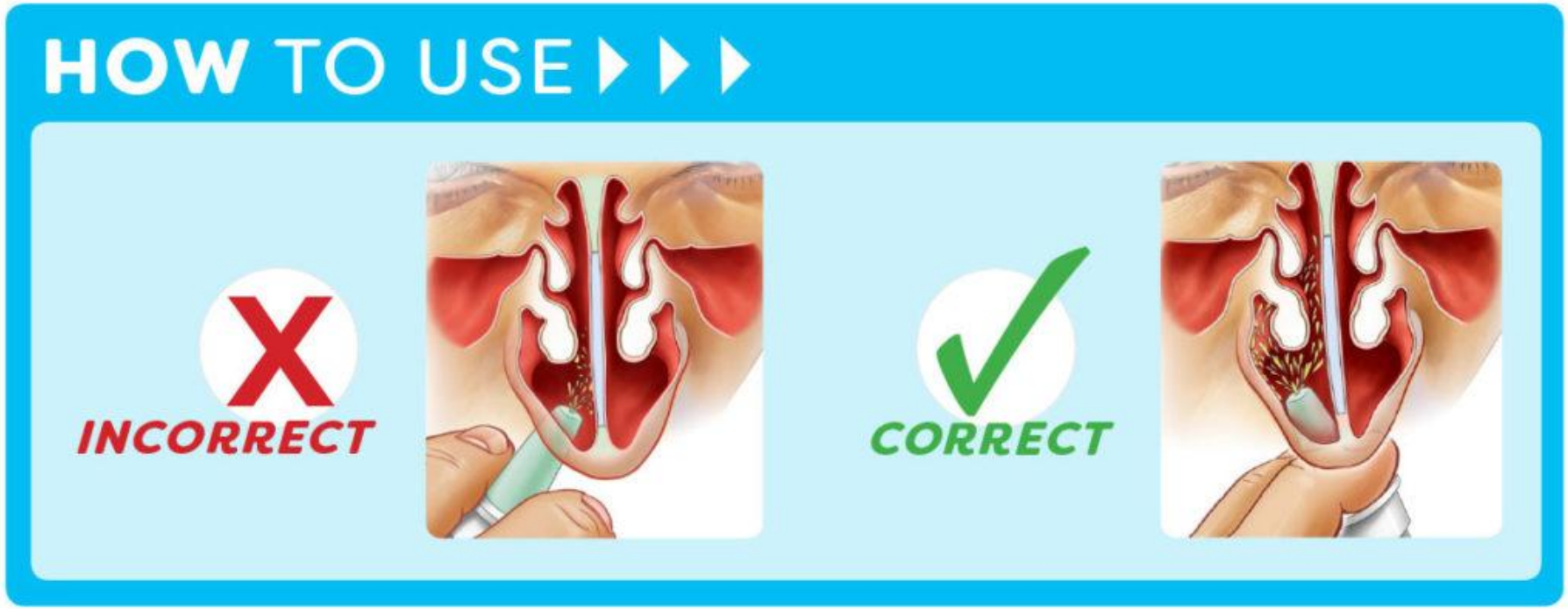
- **Intranasal corticosteroids are preferred over other medical therapies – even when used on an as-needed basis**

Treatment Options



Treatment Summary

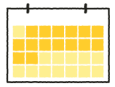
- **Avoidance is first-line therapy!!**
- **Intranasal steroids are the preferred first-line medication therapy**
- **Second-generation antihistamine** (e.g., Zyrtec, Claritin, Allegra, Xyzal)
    - Daily management of seasonal allergies with fewer side effects and longer relief
- **First-generation antihistamine** (e.g., Benadryl)
    - Emergency situations (like sudden allergic reactions), nighttime use due to drowsiness
- Ocular antihistamine drops (for eye symptoms), intranasal antihistamine sprays, intranasal cromolyn, intranasal anticholinergic sprays (Atrovent), and short courses of oral corticosteroids (reserved for severe, acute episodes only) may also provide relief
- Montelukast (Singulair) alone is ineffective in treating allergic rhinitis, but it may be considered as **an adjunct therapy**.
- **Decongestants (Sudafed)** are generally not recommended for children under 6 years. Use with caution in older kids.
    - Short-term use to relieve nasal and sinus congestion
- **Allergy immunotherapy** (shots or drops) – for more severe symptoms, no improvement with avoidance or meds – takes 3 to 5 years of treatment
- **Biologic therapy** (Xolair) – for more severe symptoms – high cost



Administering a Nasal Steroid

- https://1ypcwd28mcp82z8k7l173v1w-wpengine.netdna-ssl.com/wp-content/uploads/2018/08/how-to-use-a-nasal-spray-correctly-horizontal-1024x411.jpg

Comparing Allergy Medications

	ANTIHISTAMINES	NASAL STEROIDS	DECONGESTANTS
1 What are common brand names?	CLARITIN, BENADRYL, ZYRTEC	FLONASE	SUDAFED, AFRIN
2 What forms does it come in?			
3 How often should it be taken?	EVERY DAY, or AS NEEDED	BEST IF USED EVERY DAY	MEANT FOR SHORT-TERM USE ONLY
4 How long does it take to work?	1 - 3 HOURS	 ABOUT 2 WEEKS	10-30 MINUTES
5 Does it cause drowsiness?	1st GENERATION: YES; 2nd GENERATION: NO	NO	NO, IT PROMOTES ALERTNESS
6 Are there other side effects?	DRY MOUTH and CONSTIPATION	NOSEBLEEDS*	HIGH BLOOD PRESSURE or RAPID HEART RATE**
7 How much does it cost?			

* If you experience nosebleeds with nasal steroids, you should stop using them and contact your healthcare provider.
** People with high blood pressure and other heart conditions should speak with their healthcare provider before using decongestants.

GoodRx

What Can School Nurses Do to Help?

Identifying Students at Risk

- Students with known asthma diagnosis
- Students with documented seasonal allergies
- **Signs to watch for:**
  - Increased use of rescue inhalers
  - Persistent coughing or wheezing
  - Reports of chest discomfort

Clearing The Nose With Hypertonic (3%) Saline Can Relieve Nasal Congestion

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Why Hypertonic Saline Works

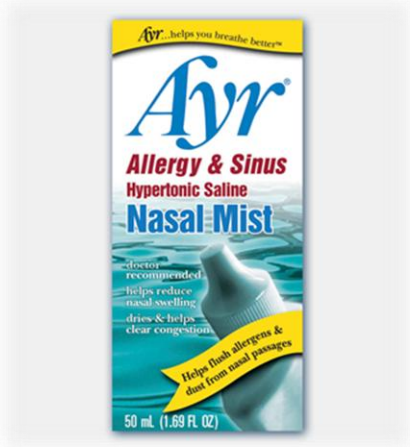
Shifts fluid from inside the nose opening the passage

Increases mucociliary clearance

Washes viruses, allergens and irritants out of the nose

Sprays are needed to open blocked nasal passages

Rinses are more effective for clearing the nose



Prevention Strategies

- Monitor pollen counts and adjust outdoor activities accordingly
- **Encourage students to:**
  - Wash hands and face after outdoor play
  - Change clothes after being outside
  - **Nose care!**
  - Keep windows closed on high-pollen days
  - Take a bath/shower at the end of the day
- Ensure classrooms are clean and dust-free

Ways to Monitor Pollen Counts

Weather Apps & Websites: Many weather apps like AccuWeather, Weather.com, and local news stations often report daily pollen levels.

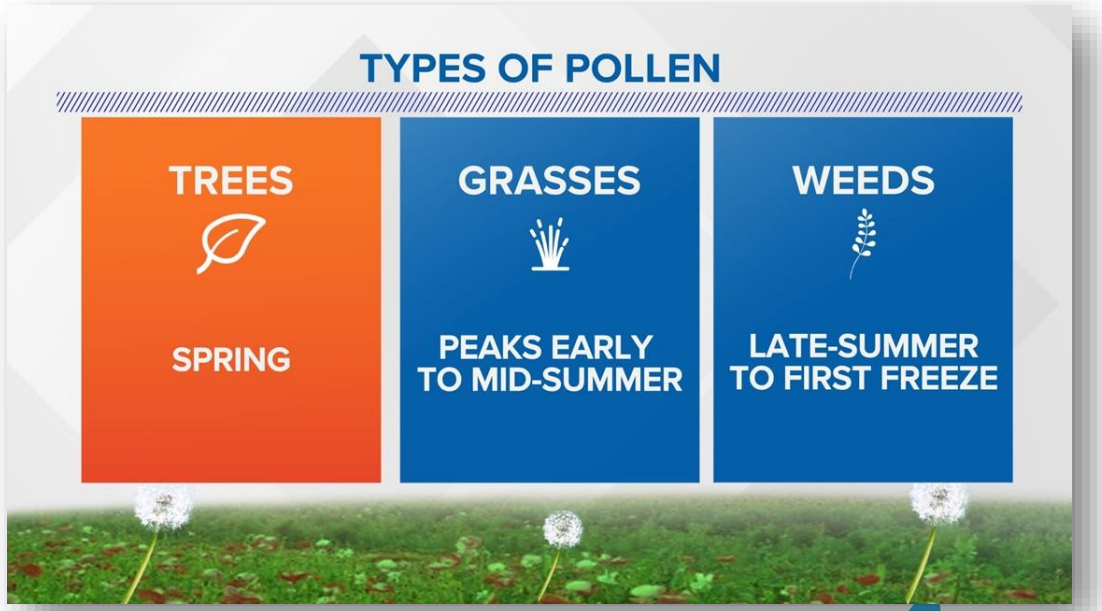
Pollen Alert Services: Sign up for text or email pollen alerts from websites like Pollen.com or your local health department.

Air Quality Apps: Apps like "AirVisual" sometimes include pollen data along with air quality reports.

Social Media: Follow local meteorologists or health departments—they often share pollen forecasts and updates.

Allergy Forecast Websites: Sites like the Asthma and Allergy Foundation of America (AAFA) provide regional pollen counts and forecasts.

Smart Home Devices: Some weather stations and smart home devices can monitor outdoor air quality, including pollen trends.



Communication and Collaboration

- Work with parents to understand individual triggers and management plans
- Coordinate with teachers to recognize early signs of distress
- Educate staff on allergy and asthma awareness

Questions?