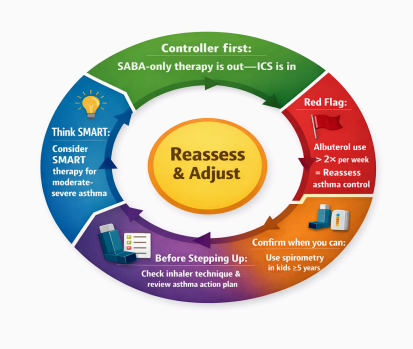
From Winter Colds to Spring Pollens: What Pediatricians Need to Know About Asthma

Winter brings viral infections, indoor allergen exposure, and cold air triggers, while spring brings sunshine, outdoor play, and blooming flowers. Unfortunately, both seasons carry risks-winter colds, and indoor irritants give way to pollen, lingering viruses, and a predictable spike in pediatric asthma exacerbations. Updated guidelines remind us that this seasonal transition is the ideal time to tighten control, review asthma action plans, and stop relying on albuterol alone.



Asthma: Chronic, Inflammatory, and Still Not "Just a Bad Cold"

Asthma remains a chronic inflammatory airway disease, even when symptoms are intermittent (NAEPP 2020; GINA 2025). Key points for primary care include the following: SABA-only therapy is no longer recommended, as over-reliance increases exacerbation risk. Inhaled corticosteroids (ICS) remain first-line therapy for asthma control. Red flags include albuterol use more than twice per week (excluding pre-exercise dosing), which signals inadequate control. Strong evidence shows that regular ICS use reduces exacerbations, emergency department visits, and systemic corticosteroid bursts (NAEPP 2020).

Diagnostics: In children ≥5 years, spirometry is recommended to confirm the diagnosis and assess severity. In children <5 years, asthma remains a clinical diagnosis based on symptom patterns, trigger exposure, and response to bronchodilator therapy.

Stepwise, Guideline-Directed Therapy

Asthma treatment should follow a stepwise approach based on symptom control and exacerbation risk (NAEPP 2020; GINA 2025). Therapy should be stepped up for uncontrolled symptoms or frequent exacerbations and stepped down only after at least 3 months of sustained control. Before any change in therapy, clinicians should always reassess medication adherence, inhaler technique, and trigger exposure. Preferred pediatric asthma therapies emphasize anti-inflammatory control rather than rescue-only treatment. For mild asthma, daily low-dose inhaled corticosteroids (ICS) remains first line, such as fluticasone (Flovent) or budesonide (Pulmicort). For moderate to severe asthma, ICS-LABA combination therapy is recommended to improve symptom control and reduce exacerbations, with commonly used options including budesonide-formoterol (Symbicort) and fluticasone-salmeterol (Advair). In

age-appropriate patients, ICS-formoterol may also be used as maintenance and in selected cases, as SMART therapy.

SMART Therapy: Fewer Inhalers, Fewer Problems

For children ≥4-5 years with moderate to severe asthma, Single Maintenance and Reliever Therapy (SMART) using ICS-formoterol is recommended (GINA 2025). SMART therapy reduces severe exacerbations, lowers cumulative corticosteroid exposure, and simplifies regimens, improving adherence.

Example of SMART medications:
• Budesonide-formoterol (Symbicort)
– Ages 4-11 yrs: 80/4.5 mcg 1 puff BID for maintenance, 1 puff PRN for symptoms (max per guidelines)
– Ages ≥12 yrs: 160/4.5 mcg 1 puff BID, 1 puff PRN for symptoms (max per guidelines)

Asthma Action Plans & Follow-Up

Every child with asthma should have a written asthma action plan that is reviewed regularly. Season-focused counseling should address seasonal allergens (pollens, mold), viral infection prevention, avoidance of tobacco smoke and vaping, and management of comorbid allergic rhinitis. Routine follow-up every 3-6 months is recommended to monitor symptom control, growth, inhaler technique, and adherence, while also addressing common barriers such as medication affordability, spacer access, and caregiver education.

Key Takeaway

Winter and spring asthma flares are predictable and largely preventable. Early controller therapy, guideline-directed stepwise management, and timely review of action plans before viral peaks in winter and pollen peaks in spring can keep kids breathing easier and families out of urgent care. **For pediatricians:** Review and update asthma action plans, reinforce inhaler technique and adherence, counsel on seasonal triggers, and adjust therapy as needed to maintain optimal control year-round.

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References

- National Asthma Education and Prevention Program (NAEPP). 2020 Focused Updates to the Asthma Management Guidelines. National Heart, Lung, and Blood Institute.
- Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention. Updated 2025

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