

Consider the diagnosis of “asthma” if there is frequent:

1. Coughing, wheezing, or shortness of breath relieved by a bronchodilator
2. “Bronchitis” or “reactive airways disease” with colds, improved with a bronchodilator

NOTE: In all patients, especially below the age of 3 years, exclude other diagnoses (such as cystic fibrosis, aspiration, airway anomaly, GERD, foreign body, etc.)

Symptom Assessment by Twos:

- Symptoms > 2X per week **OR**
- Awaken at night from asthma > 2X per mo.

NO

Diagnosis: Intermittent Asthma

YES

Diagnosis: Persistent Asthma

Advise all patients with asthma:

1. Identify and avoid triggers such as allergens (pollens, molds, animal dander, dust mites, cockroaches), smoke, sinus infections, and heartburn. Consider skin testing to identify potential allergens.
2. Always carry a short-acting beta-agonist (e.g. albuterol). Quick relief use of albuterol (by inhaler or nebulizer) can be used every 4 to 6 hours as needed for symptoms.
3. A course of oral corticosteroids may be needed if a flare-up occurs (such as “bronchitis” with colds).
4. For exercise-induced bronchospasm: albuterol 2 puffs inhaled 10 to 60 minutes prior to exercise.

Treatment:

Daily Inhaled Corticosteroids
 (low to medium dose; see dosage chart on reverse)

Note: Patients using a metered dose inhaler should use a valved holding chamber device (spacer).

Assess Control

1. Review treatment every 1 to 3 months until stable then at least every 6 months.
2. Consider spirometry at least every one to two years to assess control (obtain more frequently if there are flare-ups).

Indications of Insufficient Control

1. Need for a bronchodilator more than twice per week or more than one canister per month.
2. Nighttime symptoms more than once per week.
3. Avoidance or impairment of activities
4. One hospitalization or more than one emergency visit in the past year.

1. **Insure compliance with previous treatment.**
2. **Add a long-acting beta-agonist or leukotriene blocker to the inhaled steroid or increase to a moderate dose of the inhaled steroid.**
3. **Consider referral to an asthma specialist if there has been:**
 - a) one past life threatening exacerbation
 - b) one past hospitalization
 - c) one or more emergency visits in the past year
4. **See the Health Care Provider Alert on the reverse side of this page.**

* Adapted from the National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (1997). This guideline is designed to assist the clinician in the management of asthma. This guideline is not intended to replace the clinician’s judgment or establish a protocol for all patients with a particular condition. For references, additional copies of the guidelines or patient documents, go to www.coloradoguidelines.org or call 720-297-1681.

Health Care Provider Alert

A-S-T-H-M-A

Anti-inflammatories: inhaled corticosteroids (below), leukotriene blockers, cromolyn, nedocromil

	FDA approved age (yrs)	Doses* (Total Daily Inhalations)		
		Low	Medium	High
AeroBid® (flunisolide) 150 mcg	6+	2-4	4-8	>8
Azmacort® (triamcinolone) 100 mcg	6+	4-10	10-20	>20
Pulmicort® (budesonide) DPI 200 mcg	5+	1-2	2-3	>3
Flovent (fluticasone) 44 (MDI) or 50 mcg (DPI)	12+ (MDI) 4+ (DPI)	2-6	2-6	>6
Flovent (fluticasone) 110 (MDI) or 100 mcg (DPI)	12+ (MDI) 4+ (DPI)	2	2-6	>6
Flovent (fluticasone) 220 (MDI) or 250 mcg (DPI)	12+ (MDI) 4+ (DPI)	-	1-3	>3
QVAR® 40 (beclomethasone)	5+	2-6	6-12	>12
QVAR® 80 (beclomethasone)	5+	1-3	3-6	>6
COMBINATION AGENT: Advair® (100,250,500/50) (fluticasone/salmeterol)	4+	(100/50) 2	(250/50) 2	(500/50) 2
NEBULIZER: Pulmicort Respules (mg)	1-8	0.25 qd	0.25 bid or 0.5 qd	0.5 bid

* Adult doses listed. Children under age 12 years use 80% of the listed dosages.
MDI = Metered Dose Inhaler DPI = Dry Powder Inhaler

Symptoms: Assess coughing, wheezing, dyspnea, nighttime awakenings, frequency of acute care visits, absenteeism from work/school, interference with activities, and use of beta-agonists.

Triggers:

1. Identify and take steps to decrease relevant triggers such as pollen, molds, animal dander, dust mites, cockroaches, smoke, sinus infections, and reflux disease.
2. For exercise asthma use an albuterol inhaler 2 puffs 10 to 60 minutes prior to exercise.

Help: When to consider referral to an asthma specialist:

1. One past life threatening exacerbation
2. One hospitalization or one or more ER visits for asthma in the past year
3. Atypical signs and symptoms or other problems in differential diagnosis
4. Goals of asthma therapy not met after 3 to 6 months of treatment
5. Conditions complicating asthma (e.g. allergies, chronic sinusitis, reflux disease)
6. Not responding to moderate dose inhaled corticosteroid therapy
7. Dependency on oral corticosteroids (daily or more than 2 bursts in one year)
8. Need for additional resources

Monitoring:

1. Asthma is a 365-day-a-year condition. **Schedule routine follow-ups, not just acute care.**
2. Spirometry (age 5+) every 1-2 years. Home peak flow monitoring also adds objectivity.

Action Plan:

1. A written Action Plan given to the patient spells out what to take daily, what to take if symptoms start and/or peak flow drops, and what to do for a significant flare-up.
2. Written Action Plans are recommended to help reduce ER visits and hospitalizations.