

# Asthma Management for Children and Adults

## Consider the diagnosis of "asthma" if:

1. **RECURRENT** coughing, wheezing, or shortness of breath relieved by a bronchodilator
2. Objective response by spirometry ( $\geq 12\%$  increase of FEV<sub>1</sub> post bronchodilator)
3. Rule out conditions such as aspiration, GERD, airway anomaly, foreign body, cystic fibrosis, vocal cord dysfunction, or COPD. GERD is a common co-morbidity. (If diagnosis in doubt, consult with an asthma specialist.)

## Assess Asthma Severity: Persistent vs. Intermittent

### Persistent Asthma

1. Symptoms  $> 2$  days per week **OR**
2. Awaken at night from asthma  $> 2X$  per month **OR**
3. Limitation of activities, despite pretreatment for exercise induced asthma **OR**
4. More than 2 steroid bursts in 1 year **OR**
5. FEV<sub>1</sub>  $< 80\%$  predicted **OR** low FEV<sub>1</sub>/FVC ratio (see below)
6. For children  $< 4$  years consider "persistent" if more than 4 episodes of wheezing in a year **AND** parental history of asthma or eczema or wheezing between illnesses.

### Treatment for Persistent Asthma: Daily Inhaled Corticosteroids (steps 2, 3 or higher)

### Assess Response within 2-6 weeks

### "Well Controlled" Asthma

1. Daytime symptoms  $< 2$  days per week **AND**
2. Awakening at night from asthma  $< 2X$  per month **AND**
3. No limitation of activities **AND**
4. Less than 2 steroid bursts per year
5. FEV<sub>1</sub>  $\geq 80\%$  predicted
6. FEV<sub>1</sub>/FVC

FEV <sub>1</sub> /FVC:	
5-19 yrs	$\geq 85\%$
20-39 yrs	$\geq 80\%$
40-59 yrs	$\geq 75\%$
60-80 yrs	$\geq 70\%$

**YES**

**NO**

Follow the **Stepwise Approach Guideline** and consider *step down* if well controlled for 3 consecutive months. Then **re-assess every 3 to 6 months.**

Follow the **Stepwise Approach Guideline** and *step up* until well controlled is achieved. **Re-assess in 2 to 6 weeks.**

- ### Quick Tips for All Patients with Asthma
- Environmental Control:** identify and avoid triggers such as tobacco smoke, pollens, molds, animal dander, cockroaches, and dust mites.
  - Flu Vaccine:** recommend annually.
  - Spirometry:** at diagnosis and at least annually.
  - Asthma Score:** use tools such as ACQ<sup>®</sup>, ACT<sup>™</sup> or ATAQ<sup>®</sup> to assess asthma control.
  - Asthma Education:** review correct inhaled medication device technique every visit, if needed.
  - Asthma Action Plan:** at diagnosis; review and update at each visit.
  - Short-Acting Beta-Agonist (e.g., albuterol):** 1) for quick relief every 4-6 hours as needed (see step 1), 2) pretreat with 2 puffs for exercise-induced bronchospasm 10-60 minutes before exercise.
  - Oral Corticosteroids:** consider for acute exacerbation.
  - Spacer with Valve:** if spacer selected, use spacer with valve.
  - Mask:** use with spacer with valve and with nebulizer for children  $< 5$  years and anyone unable to use correct mouthpiece technique.

See [www.coloradoguidelines.org](http://www.coloradoguidelines.org) for additional asthma management resources.

Consider referral to a specialist if not well controlled within 3-6 months using stepwise approach **OR** 2 or more ED visits or hospitalizations for asthma in a year.

# Asthma

## Stepwise Approach

