

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 FEV₁ 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. FEV₁ $< 80\%$ predicted **OR** low FEV₁/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. FEV₁ $\geq 80\%$ predicted
6. FEV₁/FVC

| FEV ₁ /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[®], ACT[™] or ATAQ[®] 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 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

