



## Allergy & Asthma Center

of Southern Oregon, PC

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### INHALERS FOR ASTHMA TREATMENT

#### WHY USE INHALERS?

Inhalers are frequently used to treat asthma because they deliver medication directly to the airways. In this way small medication doses reach airways and lungs directly, and improve these with few or no side effects on the body. When medication is instead given by a pill or capsule, the medication is absorbed from the stomach and intestines into the blood stream and typically circulate throughout the body. It is during this circulation through the various parts of the body that side-effects can occur.

#### TYPES OF INHALERS

Just as tablets and capsules contain different medications, so do inhalers. There are five families of medications that are given by inhaler:

- 1.) **CORTISONE-LIKE MEDICATIONS:** (Some examples: Flovent, Azmanex, Pulmicort, Aerobid, QVAR, Azmacort, Vanceril, Beclovent,) These inhalers **prevent asthma** and **reduce the allergic inflammation** in the airways of patients with asthma. Inhaled cortisone-like medications are excellent anti-inflammatory agents and are useful to prevent asthma attacks if **used regularly as a MAINTENANCE INHALER on a daily basis**. When given by inhaler, this type of medication enters the blood stream in much lower amounts than if pills were taken. This means that cortisone-like inhalers provide very effective asthma therapy with few side effects. The most common, though still infrequent, problems are yeast infection in the mouth (“thrush”), cough, hoarseness, or sore throat. These can be minimized by rinsing your mouth (**gargling**) **with mouthwash** after using such inhalers and by using spacer devices.
- 2.) **ADRENALINE-LIKE MEDICATIONS:** (Albuterol, Proventil, Ventolin, Xopinex, Maxaire, Terbutelline, Brethaire, Tormalate). These inhalers are **used AS NEEDED for the TEMPORARY RELIEF** of symptoms of sudden onset asthma and the prevention of exercise-induced asthma. They have a rapid onset of action (within 5-20 minutes) in some cases, they may be used before other types of inhalers to prevent coughing and open the airways to allow other medications to penetrate more deeply into the lungs. This type of inhaler is quite safe if used properly. Problems occur if the inhaler is not used early enough to treat symptoms or is heavily overused because the maintenance medications are failing to control the asthma. **If you require 4 or more doses (8 puffs or more) of your inhaler in 24 hours, you should call your doctor’s office**. Generally adding more inhaled cortisones (type 1 above) will minimize need for adrenalin type meds. **LONG ACTING BRONCHO DIALATORS** like Serevent and Foradil (formoterol) are similar adrenaline like medicines which last 12 hours or more. These are useful **once nightly or twice daily** to prevent asthma symptoms. They should **NOT** be taken more than twice daily, and work best and safest when combined with inhaled cortisones (type 1 above).
- 3.) **COMBINATION INHALERS:** (Advair, Symbicort) These combine type 1 (Flovent or Pulmicort) and type 2 (Serevent or Formoterol medications) in a single device (a dry powder inhaler). **A MAINTENANCE dose of 1 puff morning and night, or 1 puff nightly (if stable), prevents asthma and relaxes airways. These should NOT be used more than 1 puff twice daily (for Advair).**
- 4.) **CROMOLYN TYPE INHALERS:** (chromolyn, Intal, Tilade, nedocromil) These inhalers also have anti-inflammatory properties and minimal side effects, but are not as powerful as cortisone-like inhalers. Like cortisone inhalers, Cromolyn should be **used regularly as MAINTENANCE medication** to prevent asthma attacks. However, Cromolyn can also be taken **just before exercise** to

supplement adrenaline-like inhalers to prevent exercise-induced asthma. It can also be taken before unavoidable exposure to “allergenic environments,” such as during a visit to a house with cats.

- 1.) **ANTI-CHOLINERGIC MEDICATIONS:** (Atrovent, Combivent, Spiriva). These **AS NEEDED INHALERS** are useful in limited circumstances in some patients with asthma. Side effects are rare. Combivent contains both Albuterol (type 2) and Atrovent (type 5) and helps COPD or Emphysema. Most asthma patients do well without needing Atrovent or Combivent (type 5) medicines.

## PROPER USE OF INHALERS

- 1.) **Aerosol** inhalers should be **breathed in during a SLOW 5-second breath in** with breath held after each puff is administered.
- 2.) **POWDERS** can clump so these inhalers are to be **breathed in with a RAPID deep breath (one half second breath).**
- 3.) In order for inhalers to work effectively they must be taken as recommended by the doctor. Make sure you understand which inhalers are for **MAINTENANCE** (to be used at regular intervals everyday) and which are to be used **AS NEEDED** (to prevent or relieve sudden onset of asthma symptoms).
- 4.) The faster you treat your asthma flare-ups the better. Do not “wait it out” to see if it goes away by itself, since the longer you wait, the worse the airway inflammation becomes and the more difficult it is to treat asthma flares. You may need to temporarily double your inhaled steroid medicine when asthma flares. Prednisone or other “rescue medicines” could be used also if severe flare-up occurs.
- 5.) If you require increased doses of your Albuterol or adrenaline-like inhalers (more than 2-3 uses daily) for relief of asthma symptoms, call the medical office for instructions on changing or adding to your maintenance medications. Extra doses of adrenaline-like medications may be a warning sign your asthma is getting worse.

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