Basic Inhaler Technique

- ◆Remove the cap from mouthpiece
- ◆Shake the inhaler several times
- ◆Tilt your head back slightly and breathe out slowly
- ◆Hold the inhaler upright & position in one of the following ways:
 - *1-2 inches away from open mouth
 - * in the mouth with lips closed around mouthpiece
 - *if unable to perform either of these, use spacer
- ◆Begin to breathe in slowly through the mouth
- ◆As you begin to inhale, press down on the inhaler to release a puff of medication
- •Continue to breathe in slowly for 3-5 seconds until a full, deep breath is taken
- ◆Hold your breath for up to 10 seconds if possible before breathing out through the nose
- •If more than 1 puff is needed, repeat puff as directed waiting 30-60 seconds between puffs
- **Rinse the mouth with water and spit out after use of steroid inhaler...DO NOT SWALLOW**

Inhaler Technique with Spacer Device

FOR OLDER CHILDREN AND ADULTS:

- •Remove caps from inhaler and spacer
- ◆Shake inhaler vigorously several times
- •Insert inhaler into the spacer ensuring the inhaler is in an upright position
- ◆Sit in an upright position
- ◆Insert spacer mouthpiece into the mouth (or alternately place mask over face ensuring snug fit)
- ◆Breathe out slowly (through the nose preferably)
- ◆Press down on inhaler to release a single puff
- •Breathe in slowly over 3-5 seconds till a full, deep breath is taken or take 2 or 3 normal breaths
- ◆Hold breath for up to 10 seconds if possible
- ◆Exhale through the nose
- •If more than 1 puff is needed, repeat puff as directed waiting 30-60 seconds between puffs
- **do not release multiple puffs into the spacer as this reduces the amount of drug inhaled**

FOR INFANTS AND YOUNGER CHILDREN:

- ◆Perform first 3 steps as above
- ◆Place child upright in your lap with their back against your chest
- Place mask over child's face ensuring snug fit over nose and mouth
- ◆Press down on inhaler to release a single puff
- ◆Hold mask in place as child takes six breaths (if mask has valves, they should open & close 6 times)

Management of Asthma Exacerbation Home Treatment

*ASSESS SEVERITY:

- ◆Measure PEF* (<50% of personal best = exacerbation)
- ◆Note signs and symptoms cough, wheeze, SOB** etc do not always correlate well with severity of attack; accessory muscle use and suprasternal retractions suggest severe exacerbation

•INITIATE TREATMENT:

◆Inhaled short acting β2 agonist: 2-4 puffs q20min up to 3X

*****ASSESS RESPONSE:

- •Good Response = PEF >80% of personal best
 No wheezing or SOB
 Response to $\beta 2$ agonist sustained for 4h
 - *Continue β2 agonist q3-4h x 24-48h
 - ◆Double inhaled steroid dose for 7-10d
 - ◆Check with doctor for follow-up instructions
- ◆Incomplete Response = PEF 50-80% of personal best Persistent wheeze and SOB
 - •Add oral prednisone (1-2mg/kg up to max 60mg) daily for 3-7 days (no tapering necessary if patient not steroiddependent prior to treatment)
 - •Continue β2 agonist therapy
 - ◆Contact doctor immediately for further instructions
- ◆Poor Response = PEF <50% of personal best Marked wheezing and SOB
 - ◆Repeat β2 agonist immediately
 - •Add oral prednisone (1-2mg/kg to max 60mg/day)
 - ◆Call doctor immediately and proceed to Emergency Room or call 911 for ambulance)

^{*} PEF = peak expiratory flow

^{**}SOB = shortness of breath