**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 β2 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 steroid-dependent 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