MANAGING ASTHMA

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What is asthma?

“Asthma is a chronic respiratory disease characterized by episodes or attacks of inflammation and narrowing of small airways in response to asthma triggers.”

National Asthma Education and Prevention Program
Asthma

- Asthma can not be cured, but it can be controlled.
- Asthma may cause chest tightness, shortness of breath, wheezing, cough or night-time awakening with breathing difficulties.
During an attack:

- Airways become irritated and swollen.
- Muscles in the airways constrict.
- Mucus production increases.
Common Triggers

- Pollens
- Molds
- Animal Dander
- Dust Mites
- Tobacco Smoke
- Cockroaches
- Changes in the Weather
- Exercise
- Respiratory infections, such as colds
- Strong emotions
- Cold air
- Strong odors
Reduce Allergen Exposure

• Do not allow smoking in the home.
• If you have a pet and removal from the home is not possible, keep pet out of bedroom.
• Control dust mites by encasing mattresses in allergen protective covering and wash sheets weekly in hot water (≥ 130 degrees)
• Minimize stuffed toys and wash weekly.
• Cover food and garbage tightly.
• Stay indoors when pollen counts are high.
Asthma Medications

- Rescue – Quick Relief Medications
- Controllers – Maintenance Medications
Rescue – Quick Relief Medications

- Work fast to open air passages
- Relax the muscles that surround the airways
- Relieve coughing, wheezing, chest tightness and shortness of breath
- Are called bronchodiilators
Rescue - Quick Relief Medications
Short Acting Beta Agonists

Albuterol – ProAir, Proventil, Ventolin
ProAir RespiClick

Levalbuterol – Xopenex
Short Acting Beta Agonists (SABA)

- Provide relief from asthma symptoms within 5 – 15 minutes
- Relief lasts from 4 – 6 hours
- If you are having multiple symptoms, you always want to take the SABA first because that will open up your airways so the other medications will get deeper into your lungs
Controllers – Maintenance Medications

- Inhaled Corticosteroids (ICS)
- Long Acting Beta Agonists (LABA)
- Combined Medications (ICS and LABA)
- Non-Steroidal Anti-Inflammatories
- Leukotriene Blockers
- Theophylline
- Monoclonal Anti-IgE Antibodies
Flovent, Arnuity Ellipta, QVAR, Pulmicort, Asmanex, Alvesco, Aerospan
Inhaled Corticosteroids (ICS)

- Make the airways less swollen and less sensitive to irritants
- Have no immediate effect on asthma symptoms
- Must be used on a regular basis to be effective
- Normally are taken twice a day (AM & PM)
- **Must be taken even when feeling well**
- Always rinse your mouth with water and spit out after taking ICS
Long Acting Beta Agonists

Serevent
Long Acting Beta Agonists

- Should NOT be used for acute symptoms
- Relax airway muscles
- Are used for nocturnal or exercise induced bronchospasm
- Work best when used in combination with ICS for long-term control and prevention of symptoms
Combined Maintenance Medications

- Advair
  (Serevent & Flovent)

- Symbicort
  (Foradil & Pulmicort)
Combined Maintenance Medications

• Dulera
  (Foradil & Asmanex)

• Breo Ellipta
  (Vilanterol & Flovent)
Long-acting Anticholinergic

Spiriva

Add on therapy for those who are not well controlled using corticosteroid and long acting bronchodilator
Spiriva

- 24 hour bronchodilator
- 2 puffs once daily
- Maintenance medication
- Do not use for acute symptoms
Tools to help with asthma management

- Spacer or holding chamber
- Peak flow meter
- Asthma action plan
Spacer or Holding Chamber
Spacer or Holding Chamber

- Makes it easier to take metered dose inhalers (MDI)
- Cuts down on the amount of deposits in mouth
- Has a device that alerts you if you are breathing in too fast
Peak Flow Meter

- A device that measures how well air moves out of the lungs
- A peak flow meter is used for daily long-term monitoring
- Helps in developing an asthma management plan
- Can signal a warning that an asthma flare is coming before symptoms are noticeable
- A peak flow meter helps guide therapeutic decisions in the home, school, clinician’s office, or Emergency Department
Using A Peak Flow Meter

- Set meter at zero
- Stand or sit upright
- Inhale as deeply as possible
- Seal lips tightly around mouthpiece
- Blow forcefully into meter
- Rest a few minutes, repeat 2 more times
- Record highest number in peak flow diary
- Maximum effort is essential!
Peak Flow Zones

**Green Zone**
- 80-100% of personal best
- Use your controller if prescribed

**Yellow Zone**
- 50-80% of personal best
- Symptoms may be mild
- Use your rescue inhaler and controller
Red Zone

- Less than 50% of personal best
- Symptoms may be severe
- Take rescue medicine and controller
- Call your doctor or go to the emergency room
Asthma Action Plan

- Written, individualized plan to help manage asthma episodes.
- Based on changes in respiratory symptoms and peak flow numbers.
- Also referred to as a crisis intervention plan or home management plan.
- Allows for timely and appropriate decision making
# Asthma Action Plan

**General Information:**

- **Name**
- **Emergency contact**  
- **Physician/Health Care Provider**  
- **Physician Signature**  
- **Phone numbers**

**Severity Identification:**

<table>
<thead>
<tr>
<th>Mild Intermittent</th>
<th>Moderate Persistent</th>
<th>Severe Persistant</th>
</tr>
</thead>
</table>

**Medications:**

- **Colds**
- **Smokes**
- **Weather**
- **Exercise**
- **Dust**
- **Air pollution**
- **Animals**
- **Food**
- **Other**

**Exercises:**

1. Pre-medication (how much and when) _____________________________
2. Exercise modifications _____________________________

## Green Zone: Doing Well

**Symptoms**

- Breathing is good
- No cough or wheezes
- Can work and play
- Sleeps all right

**Peak Flow Meter**

More than 80% of personal best or ________

**Control Medications**

<table>
<thead>
<tr>
<th>Medication</th>
<th>How Much to Take</th>
<th>When To Take It</th>
</tr>
</thead>
</table>

## Yellow Zone: Getting Worse

**Symptoms**

- Some problems breathing
- Cough, wheezes, or chest tight
- Problems working or playing
-Wake at night

**Peak Flow Meter**

Between 50 to 80% of personal best or ________ to ________

**Contact Physician If using quick relief more than 2 times per week**

<table>
<thead>
<tr>
<th>Medicine</th>
<th>How Much to Take</th>
<th>When To Take It</th>
</tr>
</thead>
</table>

## Red Zone: Medical Alert

**Symptoms**

- Lots of problems breathing
- Cannot work or play
- Getting worse instead of better
- Medication is not helping

**Peak Flow Meter**

Between 0 to 50% of personal best or ________ to ________

**Ambulance/Emergency Phone Number**

<table>
<thead>
<tr>
<th>Medicine</th>
<th>How Much to Take</th>
<th>When To Take It</th>
</tr>
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</table>

**Go to the hospital or call for an ambulance if**

- Still in the red zone after 15 minutes
- If you have not been able to reach your physician/health care provider for help

**Call an ambulance immediately if the following danger signs are present**

- Trouble speaking/halting due to shortness of breath
- Lips or fingernails are blue
Asthma Action Plan

Use the colors on the peak flow meter to guide your treatment:

**GREEN** means **GO**: use your daily inhaler

**YELLOW** means **CAUTION**: use your rescue inhaler in addition to your daily medicine

**RED** means **STOP**: Get help from your MD right away or go to the nearest Emergency Room!
Essential Components of Action Plan

- Peak flow monitoring
- Asthma symptoms
- Asthma medications
- Emergency telephone numbers and locations of emergency care
Take Control of Asthma

- Identify your triggers
- Know when to take your asthma medications
- Know how to take your asthma medications
- Use your peak flow meter
- Follow your action plan