Caring for Kids with Asthma:
A Guide for Massachusetts Child Care Programs

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About This Guide

This guide is for childcare educators who work in Massachusetts – whether you work in center-based or home-based settings. One out of eight children in this state has asthma. Here you can find information about how to help care for these children.

This guide includes information about recognizing asthma symptoms, partnering with parents in caring for asthma, and removing things that can trigger asthma. Also, there are tips about how you can work with parents to manage a child’s asthma.

YOU can play an important role in ensuring children with asthma lead a normal, active life. This guide can help you.

What is Asthma?

- Asthma is a chronic (long lasting) disease of the lungs.
- Researchers don’t know what causes people to develop asthma. However, it is believed to run in families and result from environmental exposures.
- This disease causes airways in the lungs to tighten, swell and fill with mucus, making it hard to breathe.
- Asthma symptoms include wheezing, coughing, chest tightness and trouble breathing.
- An asthma attack is serious. A person having an asthma attack may need emergency treatment, and may even die if they are not treated.
- The good news is that asthma is very treatable. With proper care, children and adults with asthma can lead active and healthy lives.
Good asthma management helps children live full healthy lives and stay out of the emergency room.

There are **four** parts to successful asthma management:

1. **Monitoring** the child’s symptoms (such as breathlessness) so treatment can be provided before an asthma attack occurs.
2. **Providing medication** as prescribed by the child’s doctor.
3. **Removing asthma triggers** from the childcare environment.
4. **Educating** everyone who cares for the child so they understand how to manage the child’s asthma – including recognizing asthma symptoms, identifying and removing triggers, and providing the correct treatment.

We’ll discuss each of these on the following pages, which have tabs for easy reference.
ASTHMA MANAGEMENT: Monitoring
Symptoms of Asthma

The four main symptoms of asthma are:

- Coughing
- Chest tightness
- Wheezing
- Trouble breathing

It is important to pay attention to asthma symptoms so you can understand if an asthma attack is starting and needs treatment. Monitoring asthma symptoms also helps make sure the asthma treatment plan is working.

Tools for Asthma Management

There are many tools that can help you remember how to take care of a child with asthma whether you are monitoring typical asthma triggers or responding to an emergency:

- You should have both an Individual Health Care Plan and an Asthma Action Plan on file for children with asthma.
- You and your staff should have training on how to give asthma medication.
- You should keep this guide nearby to look up information as needed.

Asthma in Young Children

Some young children may have asthma symptoms and use asthma medications, even though they have not been diagnosed with asthma. Doctors don’t always diagnose asthma at a young age because the lungs are still developing. It is still a good idea for them to have an Individual Health Care Plan or an Asthma Action Plan if they are at risk of asthma-like attacks or may require asthma medication.
Asthma Action Plan

An Asthma Action Plan (AAP) is an important tool that can help you prevent and treat asthma attacks. An AAP shows you how to:

- Recognize well-controlled asthma (**GREEN ZONE**).
- Recognize which symptoms indicate you should pay extra attention and add or increase medications according to the plan (**YELLOW ZONE**).
- Recognize the symptoms of an asthma emergency (**RED ZONE**) in which you should provide rescue medication and call 911.

Each child with asthma has different symptoms and medications, so each child needs to have his or her own AAP.

- Ask parents for an AAP that has been created by the child’s doctor.
- Blank AAP forms can be ordered free online (in multiple languages) from the MA Clearinghouse: [www.maclearinghouse.com](http://www.maclearinghouse.com)
How to Use the Asthma Action Plan

Asthma symptoms can come on slowly or rapidly. An attack may be mild for some time before getting worse, or it may come on fast and get worse quickly. Sneezing, runny nose, scratchy throat and itchy eyes are common allergy reactions that can lead to lung problems for people with asthma.

YELLOW ZONE:
Early Symptoms of an Asthma Attack
Symptoms in the yellow zone on an Asthma Action Plan indicate that the asthma is no longer completely controlled and the child needs more or different treatment. The following symptoms are in the yellow zone:

- First signs of a cold.
- Wheezing, noisy breathing, or whistling sounds coming from the chest, especially if there are four wheezing episodes in one month.
- Tight chest: Children may say their chest ‘hurts’ or feels ‘heavy’ and toddlers may press on their chest or throat.
- Coughing that continues over hours or days, coughing that gets stronger or more frequent, or coughing during sleep.
- Difficulty sleeping due to asthma, either during naps or at night.

If the child has any of these yellow zone symptoms, give the child medicine according to the instructions on the Asthma Action Plan or Individual Health Care Plan. If the child is over age 5 and has a peak flow meter, you can use it to check the child’s breathing and compare it to the peak flow numbers on the plan.

RED ZONE:
Symptoms of an Asthma Emergency
Symptoms in the red zone on an Asthma Action Plan are serious. If a child has any of these symptoms the asthma is getting worse quickly.

- Severe wheezing that you can hear
- Heavy coughing
- Crying but not making noise
- Blue lips
- Chest and neck pulled in, ribs showing
- Nose opens wide
- Breathing really fast (can’t speak in complete sentences)

Call 911 or go to the emergency room if you see any of these symptoms. Provide medication according to the Asthma Action Plan.
Massachusetts has regulations that require every child with asthma to have an individual health care plan (IHCP) on file at the childcare site.

- A parent, teacher and health care provider together create an IHCP for the child.
- The IHCP includes information about symptoms, treatments, and side effects.
- You should ask the parent to include information about a child’s asthma triggers, and to show you how to give their child’s medications.
- Look at the “Communication: Working with the Asthma Team” section of this guide (page 27) for more information on filling out this plan.
ASTHMA MANAGEMENT: Providing Medication
Types of Medication

Asthma medications are an important part of caring for asthma. These medications make breathing easier by decreasing mucus and swelling and by relaxing the muscles that tighten up the airways. Childcare educators must be trained by a health care provider or parent about how to give asthma medication (refer to the Resource section at end of this document for information on training).

There are two types of asthma medications:

1. **Long-term control medications** control daily symptoms and are taken even if the child appears to be healthy.
2. **Rescue (quick-relief) medications** should be taken to relieve immediate symptoms. If rescue medications are being taken daily, encourage parents to talk to their child’s doctor about finding a better way to control the asthma.

If a child’s asthma is triggered by allergies, the child may need to take allergy medications along with asthma medications to help control symptoms.

Medication and Equipment

**Controller Medications**
Controller medications help control swelling and build up of mucus in the lungs. They are taken daily to prevent moderate to severe asthma symptoms. They should be taken even if the child is well. These controller medications do not give quick relief during an attack. Examples include:

- Singulair (also called Montelukast)
- Inhaled steroids: Budesonide (also called Pulmicort), Fluticasone (also called Flovent), Beclomethasone (also called Qvar)

**Rescue Medications**
Rescue or quick relief medications relax muscle spasms in the lungs and give quick relief during an attack. They also help prevent muscle spasms during exercise when taken 15-20 min before exercise. Examples include:

- Albuterol (also called Ventolin, Proventil, ProAir)
- Levalbuterol (also called Xopenex)
- Pirbuterol (also called MaxAir)
Since children may need medication during childcare, ask parents if the child’s doctor can prescribe an extra inhaler to keep at the child care site.

There are several different pieces of equipment used in giving asthma medication. Here are pictures of the most common devices used. Look in this guide’s “Glossary” (page 29) for definitions of each.

You can find step-by-step picture instructions on how to give medication here: [www.nhp.org/pages/providers_clinicalresources_asthmatooldownload.aspx](http://www.nhp.org/pages/providers_clinicalresources_asthmatooldownload.aspx)
ASTHMA MANAGEMENT: Removing Asthma Triggers
Causes of Asthma

- Asthma symptoms can be caused by exposure to triggers. Each child may have a different set of things that triggers his or her asthma.
- Triggers are things in both the indoor and outdoor environments that may not bother a person without asthma – but do bother children and adults with asthma because they have sensitive lungs.
- Important triggers include dust and dust mites, tobacco smoke, mold and mildew, pests, strong smells, and pets among other things.
- Removing asthma triggers from your child care setting is an important way to help children with asthma.
Managing Asthma Triggers

The triggers below can make asthma worse. There are many easy and low cost things that childcare staff can do to reduce or get rid of asthma triggers in the childcare setting. By managing triggers, you can play a big role in preventing asthma attacks at your childcare site.

- Dust and Dust Mites
- Pests
- Perfumes, Odors and Strong Smells
- Cleaning Products
- Tobacco Smoke
- Furry or Feathered Animals
- Mold and Mildew
- Exercise
- Viral Infections
- Outdoor Air Pollution and Weather
- Pollen
- Food Allergies
Dust and Dust Mites

Dust and dust mites are the most common asthma triggers.

Dust mites are tiny bugs that are impossible to see but live in every home. They can be found in:

- Bedding
- Stuffed toys
- Carpeting
- Mattress
- Pillows
- Other common household items

Breathing in dust and dust mite droppings can trigger an asthma attack and could also cause asthma in children who did not have asthma already. The good news is there are many easy things you can do to reduce household dust, which reduces dust mites.

**What Can You Do?**

- Use special allergy covers on mattresses for children napping in beds or cribs. Wipe the covers off with a damp cloth or vacuum fabric covers once a month.
- Wash stuffed animals, sheets, blankets and other bedding in **hot** water weekly. You could also put these items in the dryer using the **hot** cycle for at least 30 minutes.
- Vacuum floors, rugs, and all upholstered surfaces (chairs with cushions, rugs, curtains, etc.) with a HEPA vacuum. HEPA vacuums are available for a low cost at big box or home supply stores.
- Reduce clutter in the building wherever possible. Store things in plastic bins or closed cabinets to avoid collecting dust.
- Use a damp mop to clean hard surface floors.
- Clean or change heating and air conditioning filters regularly.

(Family childcare should also apply this tip when possible): When making large purchases or doing renovations, consider buying furniture that is smooth and wipe-able, and choose smooth, non-porous flooring rather than carpet.
Pests and pest droppings can trigger asthma or make asthma worse. Some chemicals used to kill pests can also trigger asthma and can be very dangerous for young children. Pests get into buildings through tiny cracks and openings and are attracted to crumbs, dirty dishes, spills and water.

Cockroaches and mice are the worst pests for asthma. Exposure to cockroaches may cause asthma in otherwise healthy children.

**What Can You Do?**

The best way to reduce pests, pest droppings and pesticide use is to use **Integrated Pest Management (IPM)**. IPM reduces pests by preventing them from entering the home and removing any sources of food and water. Pesticides are used only as a last resort. The following are components of IPM:

- **Don’t feed pests**: Remove sources of food and water for pests, clean dirty dishes and spills quickly, store food (including pet food) in sealed airtight containers, fix dripping faucets, and keep a tight lid on the garbage.
- **Keep pests out**: Repair any cracks in the walls and close openings to the outdoors. Clean up any clutter like paper, newspapers and cardboard.
- **Trap existing pests**: If possible, use bait traps (outside the reach of children) or sticky traps instead of spraying pesticides.
- **Your IPM contractor should only use pesticides as a last resort**: If all other steps have failed, your IPM contractor may apply pesticides very carefully.
Strong smells from common household items can trigger asthma attacks. These products include:

- Cleaning supplies
- Perfumes
- Air Fresheners
- Gas/smoke from stoves, heaters

Sprays of any kind are put tiny particles into the air and irritate the lungs. Even things that have a nice smell, such as electric plug-in air fresheners, can trigger asthma. The safest option is always to buy less toxic, “fragrance-free” products and avoid all strong smells.

**What Can You Do?**

- Avoid chemical air fresheners or sprays. Use exhaust fans to air out rooms after cleaning.
- Avoid wearing hairspray or perfume near children and consider creating a fragrance-free policy for the childcare site.
- Close windows if there are exhaust fumes outside, such as from buses.
- Use low or no-VOC paints. These are easy to find at hardware stores.
- Use non-toxic fragrance-free cleaners and clean when children are away (see next section on “Cleaning Products”).
Preparing Bleach: more is NOT better!

For **food areas**, mouthed **toys and pacifiers** (such as refrigerators, freezers, plastic cutting boards, stainless cutlery/utensils, dishes, glassware, countertops, pots and pans, toys that have been mouthed, high chair trays), add 2 teaspoons of bleach to 1 gallon of water.

For **toilet and diapering areas** (such as bathroom surfaces, sinks, changing tables, potty chairs, diaper pails, and doorknobs), add ¼ cup of bleach to 1 gallon of water, or 1 tablespoon of bleach to 1 quart of water.

Throw away any leftover bleach solution, or make sure it is clearly marked and stored safely.

Look for **less toxic certified cleaning products** with these logos:

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Cleaning, sanitizing and disinfecting are very important in childcare settings, but they can be dangerous if not done correctly. You only need to use a sanitizer or disinfectant on surfaces required by MA Department of Early Education and Care regulations. For other areas, like floors and windows, you can use soap and water.

**Bleach is the most common sanitizer and disinfectant. It can trigger asthma attacks and may cause new cases of asthma.** It is important to reduce or eliminate children's contact with bleach. Use bleach only when required and in the right amount. If possible, use bleach when children are not present.

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**What Can You Do?**

- Use less-toxic, certified cleaning products when possible. Two common certifications to look for are Green Seal and EcoLogo.
- Never mix different types of cleaning products. Don’t mix bleach with ammonia, vinegar or other acids.
- The safest bleach alternative is hydrogen peroxide-based disinfectants (e.g. Oxivir).
- Read the labels on all cleaning products. There are some cleaners and disinfectants that are branded as “green,” but only select those that are third party certified.
- If disinfecting or sanitizing, first clean surfaces well with soap and water or other less-toxic cleaners. Second, rinse with water using a cloth. Third, use disinfectant by wiping the solution on the surface.
- If using spray bottle, spray solution onto cloth instead of directly onto surface.
- If you must use bleach, be careful to measure correctly and do not spill when preparing the solution. Always put water into the container first, then add the bleach.
- Mix bleach with cool, not hot water and don’t use more than the recommended amount of bleach.
- Let the bleach dry for two minutes before touching or using the object.
- Open windows or turn on an exhaust fan for good ventilation when using bleach and other cleaning products.
Being around tobacco smoke is dangerous, especially for children. Secondhand smoke is an asthma trigger. Being exposed to secondhand smoke even makes it more likely that kids who don’t have asthma, will develop it.

Kids are the most at risk because they are still growing, and they breathe more times per minute than adults. This means they breathe in more of the chemicals found in cigarette smoke than do adults. Children can still breathe in chemicals from smoke even after someone has finished the cigarette because they stay in the air.

**What Can You Do?**

- Try to help parents and staff (and for family childcare, family members) quit smoking.
- There is help for people who want to quit smoking. They can call 1-800-QUIT-NOW or visit [www.makesmokinghistory.org](http://www.makesmokinghistory.org) for help.
- Ask staff who smoke to change their clothes after they have a cigarette.

If staff can’t change their clothes, ask them to wear a special jacket that they only wear when smoking. They can take off this jacket when they come inside.

**Center-based Childcare**

Create a smoke-free policy. Do not allow smoking anywhere on your center’s property, even outside.

**Family Childcare**

Ask family and friends to smoke outside, even if childcare is not in session.

**Can you smell smoke in your apartment?** If people in another apartment in your building smoke, the smoke can come into your apartment. Talk with your landlord if you rent, or your condo association, if you own, about including a no smoking indoors policy for your building. It’s legal and could save money in repair costs! Check it out: [http://makesmokinghistory.org/secondhandsmoke/housing.html](http://makesmokinghistory.org/secondhandsmoke/housing.html)
Furry or Feathered Animals

Animals with fur or feathers carry allergens in their saliva and on their skin, fur, or feathers. Pet dander may get on the clothes, blankets, and stuffed toys of children and staff. It can also float in the air and settle on children, furniture or toys.

What Can You Do?

- Have pets such as fish or hermit crabs, or raise and release butterflies.
- If you have a furry or feathered pet, keep it outside of the childcare rooms and play areas, and especially off furniture and carpets.
- Tell parents before they enroll a child if you have a furry or feathery pet.
Mold and mildew produce tiny spores that are carried in the air. The spores can be harmful to people with allergies and asthma and could cause asthma in a child who is healthy. Mold grows where it is damp. You can find mold under carpets, under sinks, on window frames and sills, and on wet appliances like air conditioners, humidifiers, and refrigerators.

### What Can You Do?

- Clean up mold and find its source (more information on this can be found in the “Resources” section). Mold will come back unless you find the source of the problem. Fix all sources of water leaks.
- To clean up mold, if it is a small problem you can wipe it up, but large mold problems require a mold remediation professional.
- Use exhaust fans or open windows to reduce moisture.
- Avoid using humidifiers or vaporizers (unless a doctor says to) – they promote mold and spread it throughout the room.
- Keep drip pans in refrigerators and air conditioners clean and dry. Clean air conditioner filters regularly.
Asthmatic children should be able to exercise if their asthma is under good control. Exercise can help children with asthma feel better so they can stay active just like everyone else. Children with asthma should be able to run around and play on a playground like other children, without struggling to breathe. However, for some children, exercise can trigger an asthma attack.

The symptoms of exercise-induced asthma generally begin within 5 to 20 minutes after the start of exercise, or 5 to 10 minutes after brief exercise has stopped.

Some children may need to use rescue or quick-relief medication before exercise. Other children need controller medication every day to keep their asthma symptoms under control. This information should be in the Individual Health Care Plan or Asthma Action Plan.

What Can You Do?

- Watch the child closely during exercise and have rescue medication nearby.
- Have the child warm up with about 5 to 10 minutes of stretching and light activity before starting to exercise, and cool down afterwards.
- Make sure the child drinks plenty of water.
- When it’s cold, have the child wear a mask or scarf to cover his or her nose, since cold air tightens the airways quickly.
- Avoid outdoor exercise on days that have a high pollen count or high pollution levels (see pages 23-24).
- Restrict the child’s exercise when he or she has a viral infection (see page 22).
Colds, flu, bronchitis and other similar illnesses can trigger an asthma attack. This type of sickness is the most common asthma trigger for young children.

### What Can You Do?

- Remind children and staff to wash their hands often to avoid spreading infections. Look in the “Resources” section for good handwashing practices.
- Keep children with asthma away from people who have a cold or flu.
- Children (and staff) should remain at home when they have the flu, and, whenever possible, when they have a cold.
- Encourage parents to have their children as young as six months old get flu shots. Children with asthma should get the flu shot, not the nasal spray.
Outdoor Air Pollution

Outdoor air that is polluted can cause asthma attacks. Air pollution is very irritating to the lungs and airways, causing them to tighten. Exposure to air pollution may cause asthma in otherwise healthy children.

What Can You Do?

- Try to keep children inside if the weather is very hot or very cold.
- To get an air quality forecast, go to: www.enviroflash.info/signup.cfm or www.mass.gov/eea/agencies/massdep/air/quality.
- Air quality is presented using a color coded system. Green zone means it is okay to play outside. Yellow, Orange and other colored zones mean children with asthma should limit outdoor recreational activities.
- Keep windows closed and use an air conditioner on high pollution days. Clean air conditioner filters regularly.
Pollen comes from trees, flowers, grass and weeds and can trigger asthma. Pollen floats in the air and can collect on any surface, even indoors. High pollen counts in the spring and fall seasons are known to be asthma triggers for some children. In addition, very cold or very hot weather can cause asthma attacks.

What Can You Do?

- On days with high pollen, keep windows closed and use air conditioners, if possible. Clean air conditioner filters regularly.
- Clean indoor surfaces, curtains and rugs often. Keep outdoor areas clear of fallen leaves, compost piles and cut grass.
- Try to keep children inside if the weather is very hot or very cold.
Allergies to foods like peanuts, tree nuts, milk, wheat, soy beans, eggs, fish, and shellfish can cause asthma symptoms. Sometimes these foods can cause a life-threatening allergic reaction making it difficult for a child to breathe. This situation can be even more dangerous for children with asthma and food allergies.

What Can You Do?

- Get training to recognize food allergy reactions, and how to treat them (including providing emergency medication, such as an epipen).
- Have parents list all of their child’s food allergies in their Individual Health Care Plan, as well as the types of food products that may contain these foods. Check labels of all food products.
- Post a list of children’s food allergies (with the child’s photo) in the kitchen and eating areas where all staff can see it.
- Wash hands after eating or wiping surfaces to avoid accidental exposure.
- Keep the child’s emergency medication within your reach at all times.
- For more information, visit www.asthmaandallergies.org.
ASTHMA MANAGEMENT: Educating
Communication: Working With the Asthma Team

Managing asthma is a team effort! Parents, childcare educators, and health care providers all have an important role to play in helping a child control their asthma so they can live active, healthy lives.

Here are some important communication tips:

- Support parents in helping to manage their child’s asthma by sharing resources with them (like this guide!) and asking them to talk to their child’s doctor or nurse.
- Remind parents they should ask their child’s doctor to create an Asthma Action Plan. The doctor could also help parents complete the Individual Health Care Plan for the child. If your program has a health consultant, he or she may be able to help as well.
- If you notice a child is having a lot of symptoms and cannot participate in activities like other children, their asthma may not be well-controlled. You should talk with the child’s parents.
- Create a daily communication form (download one at: www.mass.gov/dph/asthma) to share with parents. This can include any changes in symptoms, medications, or triggers.
- Work with parents to update the Individual Health Care Plan and Asthma Action Plan regularly. Think about scheduling an annual health update meeting.
- Take training on asthma management. Schedule an asthma-awareness meeting with all childcare staff to discuss asthma in your childcare center. Ask if any local asthma coalitions offer trainings for childcare staff.

What is the key to being on any team? COMMUNICATION! It is important for all individuals to have open and regular communication about a child’s asthma management. Share the information in this guide with parents!
Communication: Having a Plan

The Individual Health Care Plan (IHCP) is a helpful resource for parents and childcare educators. The plan provides information so a childcare educator can successfully care for a child with asthma. Children with asthma should have both an IHCP and Asthma Action Plan.

Here is an example of how an asthma team could complete the plan for a child with asthma. An IHCP should include all of the following information:

- A description of the child’s asthma.
  
  John’s asthma is triggered by dust and pet dander. He developed asthma at age four and it is fairly well controlled.

- A description of the symptoms.
  
  John’s early warning asthma symptoms are a mild cough and his throat gets itchy. When he’s having a bad asthma attack he wheezes when he breathes and has extreme difficulty breathing.

- A list of any medical treatment that may be necessary.
  
  John takes Singulair and Flovent once a day at home to help control his asthma. If John has trouble breathing, he takes his Albuterol with his inhaler and uses a spacer with a mask.

  
  Sometimes John gets very grumpy after taking his Singulair. When John takes his Albuterol, he often gets a little hyper afterwards.

- Any potential consequences if treatment is not given.
  
  If John does not take his Albuterol he is more likely to become very sick. When he has an asthma attack his lungs close up and make it hard to breathe. If he’s having a serious attack (as described in the red zone of his asthma action plan), he MUST have his rescue medication and be brought to the emergency room.

Ask parents to work with their child’s doctor to create an Asthma Action Plan!

IHCP and Allergies

An IHCP should list all allergies and instructions on the steps that need to be taken to avoid that allergen. For example, a parent might write on an IHCP to only feed the child food supplied from home. If a childcare provides pre-packaged food, make sure to read the ingredient label every time a food is used.
Allergen: A substance that causes an allergic reaction, like coughing or sneezing. For example, dust, pollen, and mold.

Asthma: A chronic (lifelong) disease of the lungs that causes the airways to tighten, swell and fill with mucus. Asthma can be made worse by exposure to allergens or irritants. Asthma symptoms can range from mild to severe, even in the same child, and can get worse quickly.

Asthma Action Plan: A document created by a healthcare practitioner that outlines the patient’s specific symptoms and what to do depending on how well the patient is doing.

Asthma Attack: An attack happens when the lung’s airways get smaller and less air can go through the lungs. Symptoms include coughing, wheezing, and difficulty breathing.

Chronic Condition: An illness or ailment that requires long term monitoring or management because it is not curable in the short term. For example, diabetes and asthma. There is no cure for asthma.

Controller Medication: Helps control swelling and overproduction of mucus in the lungs’ airways. They are taken daily (even when the child is well) to prevent moderate to severe asthma symptoms.

Dander: Small particles of skin, hair, or feathers. Dander often falls out when an animal sheds or molts and can be an allergen.

Disinfectant: A product that kills nearly 100% of germs. To be used on non-living objects only.

H.E.P.A. Filter: “High Efficiency Particulate Air.” An air filter that traps extremely small particles that normal vacuums or filters would spit back out.

Inhaler: A device that allows for the breathing in of medication.

Integrated Pest Management: A lasting and environmentally-friendly approach to managing pests by a combination of approaches.
**Irritant:** A physical, biological, or chemical agent that makes the body react in some way. For example, bleach is a chemical irritant that can trigger asthma attacks.

**Mask:** Usually used with a nebulizer or spacer and goes over the face to help children inhale medication.

**Nebulizer:** A machine that changes liquid medication into a fine mist that can be inhaled. It is used to deliver medicine deep into the lungs.

**Rescue Medication:** Relaxes muscle spasms in the lungs’ airways and gives quick relief during an attack. It also helps prevent muscle spasms during exercise when taken 15-20 min before exercise.

**Respiratory System:** The parts of your body used for breathing. This includes the lungs, nose, and throat.

**Sanitizer:** A product that kills 99.9% of germs. It is different from disinfectant and should not be used to replace disinfectants. It can be used on people (such as hand sanitizer) and objects.

**Spacer:** A device that attaches to an inhaler to help improve delivery of the medication into the lungs and be used by all people with asthma, and are especially helpful to children.

**Triggers:** Anything (including activities and substances) that causes asthma to worsen. An asthma trigger is something that can cause an asthma attack.

**Wheezing:** Breathing with difficulty that produces a whistling sound caused by mucus, airway constriction, and inflammation.
Asthma Information

- Asthma Prevention and Control Program at the Massachusetts Department of Public Health
  For information about asthma in Massachusetts.
  www.mass.gov/dph/asthma

- Massachusetts Early Childhood Comprehensive Systems Project at the Massachusetts Department of Public Health
  For more information.
  Phone: (617) 624-5919

- Asthma and Allergy Foundation of America, New England Chapter
  For information on Managing Allergies in Childcare.
  www.asthmaandallergies.org
  Phone: (781) 444-7778

- American Lung Association of the Northeast
  For information on asthma.
  www.lung.org/associations/charters/northeast
  Phone: 1 (800) 488-LUNG
- Massachusetts Asthma Advocacy Partnership
  For information on asthma and what is being done in Massachusetts.
  www.maasthma.org

- Massachusetts Health Promotion Clearinghouse
  To order asthma action plan forms in eight languages and posters in English and Spanish.
  www.maclearinghouse.com

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**Safe Cleaning & Chemicals**

- Policy Statement: Sanitizing and Disinfecting from Massachusetts Department of Early Education and Care
  www.eec.state.ma.us/docs1/regs_policies/group_schoolage_policies/sanitize_disinfect.pdf

- Sanitize Safely and Effectively: Bleach and Alternatives in Childcare Programs from California Childcare Health Program

- Eco-Healthy Childcare: Household Cleaning Products
  www.oconline.org/resources/publications/factsheetarchive/Household_chemicals.pdf

- Informed Green Solutions: Information on purchasing environmentally preferable products:
  www.informedgreensolutions.org
Information on Triggers

GENERAL INFORMATION

■ Environmental Protection Agency’s “Breathing Freely: Controlling Asthma Triggers” video:
  www.epa.gov/asthma/triggers.html

■ Bureau of Environmental Health’s Asthma and Your Environment brochure:
  www.mass.gov/dph/asthma

INTEGRATED PEST MANAGEMENT

■ MA School & Daycare IPM Program
  For information on IPM and state regulations.
  http://massnrc.org/ipm

■ EPA Integrated Pest Management in Childcare Centers
  To download pamphlets and other information on IPM.
  www.epa.gov/pesticides/controlling/childcare-ipm.htm

■ IPM in Childcare Centers, EPA
  This is a training presentation in PowerPoint.
  http://epa.gov/childcare/IPM_CCC.pdf

MOLD

■ Environmental Protection Agency
  www.epa.gov/mold/mold_remediation.html
TOBACCO CESSATION

- **MA Tobacco Cessation and Prevention Program**
  For information on quitting and on smoke-free housing.
  Phone: 1 (800) QUIT-NOW
  [www.makesmokinghistory.org](http://www.makesmokinghistory.org)

VIRAL INFECTIONS

- **Proper handwashing**

AIR QUALITY

- **To sign up to receive emails about your daily air quality forecast:**
  [www.enviroflash.info/signup.cfm](http://www.enviroflash.info/signup.cfm)

- **To look online for the daily air quality forecast:**
  [www.mass.gov/eea/agencies/massdep/air/quality](http://www.mass.gov/eea/agencies/massdep/air/quality)

- **Child Care Weather Watch:**
  [www.idph.state.ia.us/hcci/common/pdf/weatherwatch.pdf](http://www.idph.state.ia.us/hcci/common/pdf/weatherwatch.pdf)

POLLEN LEVELS

- **To look online for the daily pollen count:**

Giving Medications

- **Neighborhood Health Plan**
  For easy illustrated instructions in several languages on using various asthma medications and equipment.
The Early Intervention Regional Consultation Programs (RCPs)
Provide support to Early Childhood Programs on medication administration, including asthma medicine. Each RCP has a part-time nurse on staff whose role is to provide on-site training and coaching to educators on a limited basis. Please contact your local RCP for more information and training availability:

**Boston Regional Consultation Program**
Thom Boston Metro Early Intervention
555 Amory Street Jamaica Plain, MA 02130
Maria Cardiello, RN
Phone: (617) 383-6522 x110
mcardiello@thomchild.org

**Northeast Regional Consultation Program**
Professional Center for Child Development
32 Osgood Street Andover, MA 01810
Laura Eberth, RN
Phone: (978) 475-3806 x 205
leberth@theprofessionalcenter.org

**Southeast Regional Consultation Program**
Schwartz Center for Children
One Posa Place Dartmouth, MA 03747
Lauren Meatty, Coordinator
Phone: (508) 996-3391 ext. 246
lmeatty@schwartzcenter.org
Western Regional Consultation Program
Thom Springfield Infant Toddler Services
1506A Allen Street, Bicentennial Plaza
Springfield, MA 01118
Sheila Rucki, PhD, PCNS, BC
Phone: (413) 783-5500
srucki@thomchild.org

Central Regional Consultation Program
Criterion Child Enrichment
31 Lake Street
Gardner, MA 01440
Erin Grady, RN
egrady@criterionchild.com

MetroWest Regional Consultation Program
South Shore Mental Health
500 Victory Road
Quincy, MA 02169
Anne Batcheller, RN
Phone: (617) 774-6056
abatchel@ssmh.org

Healthy Homes and Schools

- Boston Healthy Homes and Schools Collaborative
  www.bhhsc.org

- Greater Brockton Asthma Coalition
  Phone: (508) 588-4049
- Pioneer Valley Asthma Coalition  
  http://pvasthmacoalition.org

- National Center for Healthy Homes  
  www.nchh.org

- Healthy Schools Network  
  www.healthyschools.org
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