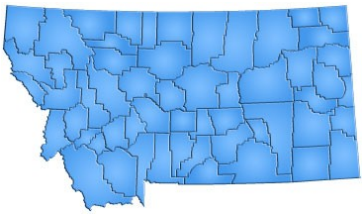
Creating Asthma Friendly Schools in Montana

A Resource Guide

Second Edition



Introduction

Did you know...

Asthma is a common disease among Montana children.

Asthma is one of the most common chronic diseases in childhood, affecting an estimated 20,000 children ages 0-18 in Montana.

One in five Montana high school students has been told they have asthma in their lifetime and 11% of Montana high school students report currently having asthma.[1]

In a typical Montana classroom with 30 students, three children will likely have asthma.

Asthma affects school attendance and performance.

Nationwide, asthma is a leading cause of school absences. In 2003, approximately 12.8 million school days were missed due to asthma in the United States.[2]

Research indicates that students with persistent asthma symptoms and asthma related school absences may have lower test scores and academic achievement.[3]

With planning, asthma can be controlled in the school setting.

Good asthma management includes proper use of asthma medications and reduction of environmental asthma triggers such as tobacco smoke and animal dander. Schools can support asthma management efforts by implementing policies and procedures that allow students easy access to their medications and that reduce asthma triggers in the school environment.

Creating an asthma friendly school environment can help students with asthma fully participate in all school activities and have the best chance at academic success. This booklet details seven simple steps toward creating an asthma friendly school.[4]

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Steps for Creating an Asthma Friendly School

Identify students with asthma	Every school should identify students with asthma and ensure that these students have an asthma action plan on file at the school as well as a Medication Authorization form if they will be self-carrying asthma medication.
Allow students easy access to their inhalers	All students with asthma should have access to their inhalers during school, sporting events and on field trips. Students should be allowed to self-carry and administer their asthma inhalers in compliance with Montana law.
Create a school wide protocol for handling an asthma episode	A school wide protocol for responding when a student has asthma symptoms or an asthma attack should be widely displayed around the school. Key staff should be trained to respond when a student's asthma flares.
Identify and reduce common asthma triggers	Schools should monitor diesel emissions, animal dander, mold, tobacco smoke, and other asthma triggers in the school environment and take steps to reduce them via appropriate policies and air quality measures.
Enable students with asthma to participate in activities	Children with exercise induced asthma should be allowed to pre-treat for asthma before physical activity, and coaches and gym teachers should be educated on how to modify activities for children with activity limitations.
Educate staff, parents and students about asthma	Staff, students and families should receive education about asthma and their role in partnering to control asthma in the school setting.
Collaborate with families, students, staff and health providers	An asthma friendly school requires a strong family-school-health provider partnership. This guide details the responsibilities for all of the parties involved in creating asthma friendly schools.

Is your school asthma friendly?

The list below covers the basic elements of an asthma friendly school. Check off the steps you already have in place at your school.

- ☐ A registered school nurse, or another trained staff person, identified to coordinate asthma activities in the school.
- ☐ A process to identify all students in the school with asthma and collect Medication Authorization forms and Asthma Action Plans.
- ☐ A policy to allow students with Medication Authorization forms to carry and self administer their asthma medication, in compliance with Montana law.
- ☐ A school wide protocol, widely known by staff and posted throughout the school, detailing what to do if a child has an asthma episode.
- ☐ A process to regularly identify asthma triggers inside and outside the school and take steps to reduce them.
- ☐ A plan to allow students with asthma to fully participate in school activities, including pre-treating for exercise induced asthma and modified physical activities for students with limitations.
- ☐ Education for staff and students about asthma.
- ☐ A strong family-school-health provider partnership.

In areas where your school does not have appropriate protocols and policies in place, consider implementing the suggestions from this guide, using the resources provided.

Step #1: Identify students with asthma

The first step to creating an asthma friendly school is to know which students have asthma. At the beginning of each school year, your school should implement a process to identify all students in the school with the disease. This may be accomplished by collecting information about asthma, along with other diseases, on health history forms. Students with asthma should then provide the school with two important documents:

1. **A Medication Authorization Form:**
   This form allows a student to carry and self-administer asthma medication in school and **must be signed by a physician, physician assistant, or advanced practice registered nurse** and the student's parent/guardian. To carry asthma medication at school, this form must be on file, as required by Montana law.

2. **Asthma Action Plan:**
   This form is an individualized plan, created by the student's healthcare provider (ideally with input from the school nurse), detailing how to care for the student with asthma. A student's asthma action plan should be easily accessible and all teachers should know its location. School nurses should also create a healthcare plan for each student with asthma, incorporating the student's asthma action plan.

The first step to creating an asthma friendly school is to know which students in your school have asthma.

Resources for identifying students with asthma are located on the following pages. Feel free to make copies of these documents and distribute them to parents/guardians and students. These resources include:

- A health history form that enables you to identify students with asthma
- The medication authorization form: Montana Authorization to Possess or Self-Administer Asthma, Severe Allergy, or Anaphylaxis Medication
- Montana Student Asthma Action Plan

For more information about using asthma action plans at your school, see page 33.

Health History

Today's Date _____

Name _____ Date of Birth _____
(last) (first) (middle)

School _____ Teacher _____ Grade _____

Physician _____ Dentist _____

Please fill in any information that is applicable. Please use the back side if necessary for additional information.

1) Asthma **medications** _____ **symptoms** _____ **asthma action plan? Y N**

2) Allergy **specify** _____ **symptoms** _____ **allergy action plan? Y N**

3) Diabetes **insulin/snacks** _____ **symptoms** _____ **age of onset** _____

4) Seizure **medications** _____ **symptoms** _____ **age of onset** _____

5) ADD/ADHD _____ **medications** _____

6) Visual problems _____ **glasses/contacts** _____

7) Hearing problems _____ **frequent ear infection** _____ **hearing aids** _____

8) Heart condition _____ **specify restrictions** _____

9) Congenital/Chronic conditions _____

10) Chicken Pox (date) _____

11) Serious injuries (list) _____

12) Operations (list) _____

13) Other _____

_____

_____

14) Special seating, bathroom privileges, restrictions _____

_____

15) List medications your student takes at home & school. MEDICATIONS GIVEN AT SCHOOL MUST BE CHECKED INTO THE OFFICE.

_____

_____

_____

16) Immunizations/shots given within the past year: _____

Please provide documentation)

_____
Individual Completing Form

_____
Relationship to Student

_____
Home Phone

_____
Work Phone

Montana Authorization to Possess or Self-Administer Asthma, Severe Allergy, or Anaphylaxis Medication

For this student to possess or self-administer asthma, severe allergy, or anaphylaxis medication while in school, while at a school sponsored activity, while under the supervision of school personnel, before or after normal school activities (such as while in before-school or after-school care on school-operated property), or while in transit to or from school or school-sponsored activities, this form must be fully completed by 1) the prescribing physician/physician assistant/advanced practice registered nurse, and 2) an authorizing parent, an individual who has executed a caretaker relative educational or medical authorization affidavit, or legal guardian.

Student's Name:_____ School:_____
Sex: (Please circle) Female / Male City/Town: _____
Birth Date: _____/_____/_____ School Year: _____ (Must be renewed annually)

Authorization by Physician/PA/APRN:

The above-named student has my authorization to carry and self administer the following asthma, severe allergy, or anaphylaxis medication:
Medication: (1)_____ Dosage: (1) _____

(2) _____ (2) _____

Reason for prescription(s): _____
Medication(s) to be used under the following conditions (times or special circumstances):
_____
_____

I confirm this student has been instructed in the proper use of this medication and is able to self-administer this medication without school personnel supervision. I have formulated and provided to the parent/guardian or caretaker relative a written treatment plan for managing asthma, severe allergies, or anaphylaxis episodes and for medication use by this student during school hours and school activities.

_____ _____ _____
Signature of Physician/PA/APRN Phone Number Date

Authorization by parent, individual who has executed a caretaker relative educational or medical authorization affidavit, or guardian:
As the parent, individual who has executed a caretaker relative educational or medical authorization affidavit, or guardian of the above named student, I confirm this student has been instructed by his/her healthcare provider on the proper use of this/these medication(s). He/she has demonstrated to me he/she understands the proper use of this medication. He/she is physically, mentally, and behaviorally capable to assume this responsibility. He/she has my permission to self-medicate as listed above, if needed. If he/she has used epinephrine during school hours, he/she understands the need to alert the school nurse or other adult at the school who will provide follow-up care, including making a 9-1-1 emergency call.

I acknowledge the school district or nonpublic school and its employees and agents are not liable as a result of any injury arising from the self-administration of medication by the student, and I indemnify and hold them harmless for such injury, unless the claim is based on an act or omission that is the result of gross negligence, willful and wanton conduct, or an intentional tort.

I agree to work with the school in establishing a plan for use and storage of backup medication. This will include a predetermined location to keep backup medication to which the student has access in the event of an asthma, severe allergy, or anaphylaxis emergency. I have provided the following backup medication:

I understand in the event the medication dosage is altered, a new "self-administration form" must be completed, or the health care provider may rewrite the order on his/her prescription pad and I, the parent/caretaker relative/guardian, will sign the new form and assure the new order is attached.

I understand it is my responsibility to pick up any unused medication at the end of the school year, and any medication not picked up will be disposed of.

I authorize the school administration to release this information to appropriate school personnel and classroom teachers.

Parent/Caretaker/Guardian relative signature: _____ Date: _____
(Original signed authorization to the school; a copy of the signed authorization to the parent/guardian and health care provider)
See generally Mont. Code Ann. § 20-5-420

Montana Student Asthma Action Plan

Student_____ School Nurse/Emergency Staff Phone_____ Fax _____
Teacher_____ Parent/Guardian_____ Phone_____
Student's Healthcare Provider_____ Phone_____ Fax_____

Green Zone	**Student is feeling well** • No difficulty participating in usual activities • No chest tightness, shortness of breath, wheezing, or coughing during the day or night Take these controller medications every day: Medicine _____ Dosage _____ When to Take it _____ _____ _____ _____ _____ _____ _____ Before exercise: Medication _____ Dosage _____ ____minutes prior to activity
Yellow Zone	**Student is not feeling well** • Chest tightness, shortness of breath, wheezing, or coughing with usual activities • Waking at night due to asthma symptoms Continue taking controller medication(s) and add these quick-relief medications:: Medicine _____ Dosage _____ When to Take it _____ _____ _____ _____ Call student's healthcare provider if: _____ _____
Red Zone	**Alert! Contact student's healthcare provider or call 911 if:** • Quick-relief medication is not helping • Breathing is hard and fast • Ribs are showing and nostrils are flaring • Can't walk or talk well Take the following medications, and call the healthcare provider or contact EMS right away: Medicine _____ Dosage _____ When to Take it _____ _____ _____ _____

Other key medical information

☐ Student self-carries rescue medication ☐ Rescue medication is stored _____
The student's asthma triggers are _____
_____

Reviewed by parent/guardian _____ Date _____
Reviewed by school nurse/emergency staff _____ Date _____
Reviewed by student's healthcare provider _____ Date _____

Montana
Asthma Control Program
Chronic Disease Prevention & Health Promotion Bureau

Step #2: Allow students easy access to their inhalers

It is critical that students with asthma have easy access to their rescue medication inhalers in case of an asthma attack. School policies should provide a way for inhalers to be easily accessible in the classroom, at recess, on field trips and during sporting events. This type of policy can literally save the life of a student with asthma. Remember:

1. **For students who can self-carry, it's the law!** Montana MCA 20-5-420 allows students in Montana who have a Medication Authorization form on file with the school to carry and self administer their asthma medication. The law also requires back up medication to be kept at the school. Schools cannot deny students the right to carry their asthma medication if this form is completed.

2. **For students who cannot self-carry, access to medications is still critical.** Some students are too young or inexperienced to carry and self administer their medication. However, these students still need access to their lifesaving asthma medications. Crafting a school policy that allows for safe storage of these students' medications and easy access if they experience asthma symptoms can protect students' health and safety.

3. **Smart policies=better health.** A well crafted asthma medication policy can protect your school from liability and allow students with asthma to prevent worsening asthma symptoms. Taking the time to implement a medication policy is in the best interest of your staff and students.

Easy access to rescue medication inhalers is critical for controlling asthma symptoms in the school environment and preventing the need for emergency medical care.

Many school districts in Montana have already implemented the Montana School Board Association's "Administering Medicines to Students" policy that includes language on asthma and allergy medications. Please review the wording on the following page and ensure that your school has this policy, or something similar, fully implemented in all school buildings and at all school sponsored events.

Montana School Board Association Model Asthma/Allergy Medication Policy

Self-Administration or Possession of Asthma, Severe Allergy, or Anaphylaxis Medication

Students with allergies or asthma may be authorized by the building principal or Superintendent, in consultation with medical personnel, to possess and self-administer emergency medication during the school day, during field trips, school-sponsored events, or while on a school bus. The student shall be authorized to possess and self-administer medication if the following conditions have been met:

- A written and signed authorization from the parents, an individual who has executed a caretaker relative educational authorization affidavit, or guardians for self-administration of medication, acknowledging that the District or its employees are not liable for injury that results from the student self-administering the medication.
- The student must have the prior written approval of his/her primary healthcare provider. The written notice from the student's primary care provider must specify the name and purpose of the medication, the prescribed dosage, frequency with which it may be administered, and the circumstances that may warrant its use.
- Documentation that the student has demonstrated to the healthcare practitioner and the school nurse, if available, the skill level necessary to use and administer the medication.
- Documentation of a doctor-formulated written treatment plan for managing asthma, severe allergies, or anaphylaxis episodes of the student and for medication use by the student during school hours.

Authorization granted to a student to possess and self-administer medication shall be valid for the current school year only and must be renewed annually.

A student's authorization to possess and self-administer medication may be limited or revoked by the building principal or other administrative personnel.

If provided by the parent, an individual who has executed a caretaker relative educational authorization affidavit, or guardian, and in accordance with documentation provided by the student's doctor, backup medication must be kept at a student's school in a predetermined location or locations to which the student has access in the event of an asthma, severe allergy, or anaphylaxis emergency.

Immediately after using epinephrine during school hours, a student shall report to the school nurse or other adult at the school who shall provide follow up care, including making a 9-1-1 emergency call.

Step #3: Create a school wide protocol for handling an asthma episode

The next step toward creating an asthma friendly school is to create a simple protocol for responding when a student has an asthma episode. An asthma episode is any time a child with the disease shows signs of wheezing, coughing or other difficulties breathing. The protocol for handling an asthma episode should be widely posted around the school, and teachers and staff should receive education regarding how to respond when a student experiences asthma symptoms. A good protocol should:

All staff at your school should know the protocol for responding to an asthma episode. Key staff members should be designated as emergency contacts for serious episodes.

1. Note the early signs of an asthma attack like coughing, wheezing and shortness of breath.
2. Remind staff to follow the student's Asthma Action Plan and help him or her administer rescue medication.
3. Have instructions on what emergency staff to contact if an Asthma Action Plan and/or rescue medication is not available or not working for the student.
4. Describe when to call 911.

A sample protocol for handling an asthma episode is located on the adjacent page.[5] Feel free to make copies of this plan to post in your school or modify it to create a protocol specific to your school.

In addition, consider contracting with a local healthcare provider to have him/her provide standing orders for emergency medications. These emergency medications could then be used in a crisis situation by individuals who do not otherwise have their medication available.

Protocol for Responding to an Asthma Episode

If a student is coughing, wheezing, is short of breath, or has chest tightness:

1. Help child to sit upright: speak calmly and reassuringly

2. Follow the individualized asthma action plan for use of quick-relief inhaler

3. If quick-relief inhaler is not available, call school nurse or designated staff member to come and assess the student.

4. Get emergency help from nurse or designated staff if student has any of these:
   - Inhaler not helping
   - Breathing hard and fast
   - Nostrils open wide
   - Can't walk or talk well

Designated staff Name_____ Room #_____ Phone_____
Name_____ Room #_____ Phone_____

CALL 911

If not breathing, unconscious, lips are blue, struggling to breathe (hunched over or ribs show), or other signs of distress

Notify parent or guardian.

Goal #4: Identify and reduce common asthma triggers

Asthma symptoms are often caused by allergens or irritants in the environment. By taking simple steps to reduce common asthma triggers, schools can help students with asthma avoid attacks and reduce absences or the need for emergency care. Common asthma triggers in the school environment include:

Schools can take simple steps, such as closing windows when allergens are present or smoke is in the air, to reduce asthma triggers.

1. Exhaust from buses and other vehicles
2. Tobacco and wildfire smoke
3. Pets and pests
4. Mold
5. Strong odors and sprays
6. Cold air and weather changes
7. Allergens
8. Respiratory infections

Indoor Air Quality Tools for Schools
For a comprehensive approach to indoor air quality management practices for schools, consult the Environmental Protection Agency's Tools for Schools action kit. This actio kit is free for schools and provides many resources for addressing indoor air quality in the school setting. Visit www.epa.gov/iaq/schools/index.html for more information.

The adjacent page lists simple steps schools can take to reduce asthma triggers in the environment.[6] Consider implementing a few of these suggestions during this school year.

Focus on *Clean Air Zone*

The Montana Department of Environmental Quality (DEQ) sponsors the Clean Air Zone Program which focuses on reducing school bus emissions through "no idle policies" that prohibit drivers from idling longer than three minutes at or near a school. Schools that implement the Clean Air Zone program can receive free signs to post around their schools and informational packets to promote the program. The Clean Air Zone program reduces diesel fuel emissions around the school, which are known to trigger asthma. The program can also help school districts save money by reducing fuel costs. For more information about the Clean Air Zone program, call the Montana DEQ at (406) 433-8773, or go to the Clean Air Zone website at: deq.mt.gov/Recycle/CleanAirZone.mcpx.

Reducing asthma triggers in the school setting

Exhaust from school buses and other vehicles

- Implement the Clean Air Zone program sponsored by the Department of Environmental Quality
- Create a "no-idling" policy that prohibits buses and other vehicles from idling near the school

Tobacco and Wildfire Smoke

- Enforce no-smoking policies on school grounds and at all school functions
- Encourage parents/guardians to avoid smoking indoors, in cars, or around children
- If there are wildfires near the school, close windows to keep smoke out of the indoor air environment and allow students with asthma to have recess and lunch breaks indoors

Pets

- Avoid pets with fur or feathers in classrooms used by students with animal allergies
- Consider having a furry and feathered pet-free school

Pests

- Do not leave food or garbage out and position dumpsters away from school buildings
- Store food in airtight containers
- If pests are present, control them using Integrated Pest Management (www.epa.gov/managing-pests-schools)
- Limit pesticide spray to infested area

Molds

- Fix all leaky plumbing and other sources of water entry into the school
- Wash mold from surfaces and allow them to dry completely
- Keep drip pans in air conditioning units, refrigerators, and dehumidifiers dry and clean

Cold Air and Weather Changes

- Encourage children to cover their nose and mouth with a scarf on cold or windy days
- Use air conditioners during humid, windy, or high allergy conditions
- Encourage susceptible children to avoid too much activity during extreme weather
- If recommended in the student's asthma action plan, assist the student in using their inhaler prior to going outside in cold weather

Allergens

- Keep windows closed, if possible, during times when pollen levels are high
- Identify students with food allergies and avoid highly allergic foods (peanuts, tree nuts, wheat, cow's milk, soy, eggs, fish) in school menus; modify arts and crafts projects to exclude food substances known to cause allergic responses.
- Allergy action plans should be in place for students known to have food allergies.

Strong Odors and Sprays

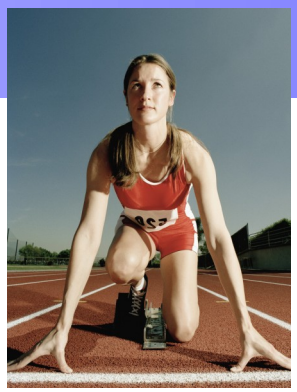
- Encourage school staff to avoid wearing strong perfumes, cologne, and hair sprays
- Use no/low VOC (volatile organic compounds) paints, adhesives and cleaning products in the school
- Ensure adequate ventilation near art supplies and laboratory chemicals
- Provide maintenance annually for the school's heating, ventilating and air conditioning (HVAC)

Respiratory Infections

Encourage students to:

- Have an annual flu shot
- Wash hands with soap and water regularly
- Cover their mouth or nose when they cough or sneeze

Goal #5: Enable students with asthma to participate in school activities



Children with well controlled asthma should be able to fully participate in school activities, including exercise. Schools can take a few simple steps to ensure that students with asthma have the best opportunity to engage in all school activities.

1. **Allow students to pre-treat for exercise induced asthma (EIA).** Approximately 90% of individuals with asthma have their symptoms worsened by exercise. To prevent exercise induced symptoms, some students will need to pretreat for EIA by using quick relief inhalers 10-15 minutes before they engage in physical activity.
2. **Modify activities for children experiencing asthma symptoms.** Activity modification may include allowing an extended warm up period or reducing the intensity of activities for students experiencing asthma symptoms.

90% of individuals with asthma experience worsening symptoms during exercise. Schools should allow students to pre-treat for exercise induced asthma to prevent exacerbations.

The adjacent page lists steps schools can take to assist students with exercise induced asthma.[7] Consider copying this page and giving it to all physical education teachers and coaches.

Focus on *Coaches Asthma Clipboard,* an educational program for coaches

Athletics play an important role in Montana schools. But with 1 in 10 Montana students affected by asthma, it is critical that coaches receive education about the disease. *The Coaches Asthma Clipboard* is a free web-based program sponsored by the Minnesota Department of Public Health. It features professional coaches from around the country providing practical tips related to helping athletes with asthma compete to their fullest ability. Encourage your coaches to get educated about asthma by viewing the 30 minute program at:

www.WinningWithAsthma.org

Assisting Students with Exercise Induced Asthma

Know Which Students have Exercise Induced Asthma (EIA)

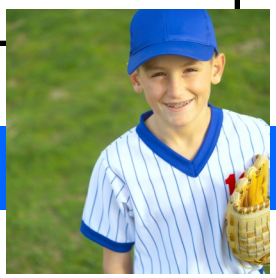
- Ask your school nurse or use student health information to identify those students who have a diagnosis of asthma or a history of asthma symptoms with physical activity.
- Ask for a copy of each student's asthma action plan or healthcare plan. Keep the copies easily available for all on-site and off-site activities.
- Discuss with students (and parents/guardians, if appropriate) their unique challenges related to physical activity and what types of exercise and other environmental factors tend to trigger their asthma.
- Take appropriate steps to inform a student's parents/guardians and the school nurse if the student frequently experiences asthma symptoms during physical activity. If this is the case, the student's asthma plan may need to be re-evaluated by the student's healthcare provider, as most students with asthma should be able to participate fully in physical activities.
- Help students and the school nurse make sure that the student's prescribed asthma medicines are readily available for use, according to the student's asthma action plan, both before physical activity and as needed for acute symptoms during physical activity.

Encourage Students to Prepare for Physical Exercise

- Students who have been prescribed pre-exercise treatment (usually an inhaled quick-relief bronchodilator) should take their medicine 10 to 15 minutes prior to exercise.
- Encourage a period of warm-up activity before exertion (e.g., walking, flexibility exercises, or other low-intensity activities).
- Check the student's asthma action plan for information about his or her triggers, and help the student avoid them when possible. Each student with asthma is sensitive to different factors in the environment. Common triggers include dust, pollen, mold, air pollution, and smoke. Cold, dry air can also trigger asthma; wearing a scarf or cold air mask will help, because it warms and humidifies the air before it reaches the airways.

Consider Modified Exercise as Needed

- If a student has obvious wheezing or breathing difficulty, have the student treat his/her symptoms according to the asthma action plan. The treatment is usually a prescribed inhaled quick-relief bronchodilator. Depending on the student's response to treatment, physical activity may then be either resumed, modified, or halted.
- When a student is having mild symptoms, consider modifying the intensity, location, or duration of physical activity. Very intense, continuous activity is more likely to cause asthma symptoms than intermittent or very light/non-aerobic exercise (e.g., walking, some field events, or weight training). There is no perfect physical activity for people with exercise induced asthma. All sports are tolerated well when a student's asthma is under control.
- When environmental conditions are bad (e.g., wildfire smoke in the air, high pollen counts, freshly cut or sprayed fields) students with asthma may need to avoid being physically active outdoors.



Goal #6: Provide education to personnel, parents and students

Since asthma is such a prevalent disease among Montana youth, all schools need to be prepared to address the illness in their schools. One of the best ways for schools to prepare for asthma is to provide education about the disease.

There is evidence that asthma education is lacking in Montana schools. According to the 2006 School Health Profiles survey conducted by the Office of Public Instruction,[8] only 14% of teachers had received staff development related to asthma awareness during the past two years. However, 61% of teachers who responded to the survey indicated that they would like to receive staff development on asthma awareness.

Ideally, education about asthma should be provided to:

1. Teachers
2. Office staff and teaching assistants
3. Administrators and school boards
4. Students and
5. Parents/Guardians

Educating these groups will allow all of the school's stakeholders to be aware of the needs and challenges related to asthma and be equipped to address the disease in the school setting.

A list of credible resources for asthma education is listed on the adjacent page. For more information about asthma education in schools, visit the Montana Asthma Control Program's website at www.dphhs.mt.gov/asthma.

Asthma Education Resources

Classroom Curriculum

- Asthma Awareness: Curriculum for the Elementary Classroom (Grades K-6)
  Sponsor: North Carolina Asthma Program
  Location: https://www.asthma.ncdhhs.gov/healthpros.htm

- Open Airways (Grades K-5)

  Sponsor: American Lung Association
  Location: www.lungusa.org

- Environmental Health Sciences Education (Grades 7-12)
  Sponsor: National Institute of Environmental Health Sciences
  Location: www.niehs.nih.gov/health/scied/

Resources for Staff

- Guide for managing asthma in schools: Teachers, administrators, custodial staff, etc
  Sponsor: US Department of Health and Human Services
  Location: https://www.nhlbi.nih.gov/files/docs/resources/lung/NACI_ManagingAsthma-508%20FINAL.pdf
- Administrators: Asthma Wellness: Collaborating to Improve Success and Well-Being
  Sponsor: American Association of School Administrators and National School Boards Association
  Location: http://www.aasa.org/uploadedFiles/Childrens_Programs/BetterTogetherReport_v4.pdf

- School nurses: Position papers and issue briefs on the role of school nurse in asthma management
  Sponsor: National Association of School Nurses
  Location: www.nasn.org

  School Tools: Asthma and Allergy Resources for Professionals Sponsor: American Academy of Asthma Allergy and Immunology Location: https://www.aaaai.org/conditions-and-treatments/school-tools

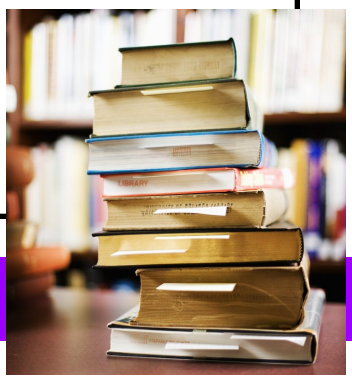
- Asthma Friendly Schools Initiative
  Sponsor: American Lung Association
  Location: www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/asthma-education-advocacy/asthma-friendly-schools-initiative/

Resources for Parents/Guardians

- Allergy and Asthma Network Mothers of Asthmatics
  Location: www.aanma.org

- American Lung Association
  Location: www.lungusa.org

- Asthma and Allergy Foundation of America
  Location: www.aafa.org



Goal #7: Collaborate with families, students, staff and healthcare providers.

The responsibility for creating an asthma friendly school does not fall on any one person or group. Instead, the process requires a partnership between school staff, administrators, healthcare providers, parents/guardians, and students. However, a few key individuals can help lead the effort, including:

1. A school nurse. Asthma is a disease that requires medical attention. Having a school nurse available to students with asthma is one of the best ways to ensure their health and safety.
2. An "asthma champion." Every school needs a health champion who will advocate for the needs of children with asthma and other diseases and work to begin creating changes in the school setting.
3. Supportive administration. Many of the suggestions in this booklet involve policy change and require administrative buy-in to implement.
4. Engaged parents/guardians. Parents/guardians are the strongest advocates for their children's health. Consider involving parent/guardian groups in the process of creating an asthma friendly school.

Creating an asthma friendly school requires a strong partnership between administrators, school staff, healthcare providers, parents/guardians, and students.

5. Educated healthcare providers. Healthcare providers must sign medication authorization forms and create asthma action plans. Schools must actively communicate with healthcare providers, and vice versa, to inform them of the information needed in the school setting in order to protect students' health.
6. Students. Asthma is a disease best controlled through self-management. Students with asthma need to be empowered to advocate for themselves in the school setting, informing school staff of their unique health needs. Students must also learn how to responsibly carry and self administer their asthma medication.

The following pages outline the roles and responsibilities for creating an asthma friendly school for school staff, healthcare providers, parents/guardians, and students. Feel free to copy and distribute to appropriate parties.

Roles and responsibilities for creating asthma friendly schools		
	School Board	**Principal/Administrators**
Identify students with asthma	Implement annual process to identify students in school with asthma and collect medication authorization forms and asthma action plans.	Distribute asthma identification forms annually. For students with asthma, collect medication authorization forms and asthma action plans and distribute to appropriate teachers and staff.
Allow students easy access to their inhalers	Ensure that school policy allows students to carry inhalers in compliance with Montana law (page 10).	Encourage students to 1) provide asthma medication forms to the school and carry their own inhalers, or 2) store inhalers in a safe, accessible location per school policy.
Create school wide protocol for handling an asthma episode	Advocate for all schools to have a school wide process for handling asthma episodes.	Create and display protocol for responding to an asthma episode in school offices and classrooms (page 12).
Identify and reduce common asthma triggers	Advocate and provide support for all schools to identify and reduce common asthma triggers and promote indoor air quality (IAQ) management.	Work with maintenance staff and teachers to monitor for and take action to reduce asthma triggers. Consider using "Tools for Schools" IAQ Action Kit in your school (pages 13-14).
Enable students with asthma to participate in school activities	Support the value and expectation that children with asthma should be participating in all school related activities.	Implement policy ensuring that students with exercise induced asthma can pre-treat before exercise. Distribute materials on activity modification and pretreatment to coaches and health enhancement staff (pages 15-16).
Provide education to personnel, parents and students	Advocate for schools to have access to asthma related information and provide asthma education.	Provide asthma resources for school office and library. Support other opportunities for education -especially for staff- on handling asthma attacks (page 18).
Collaborate with families, students, staff and health-care providers	Regularly discuss policy changes and current practices related to asthma with key stakeholders. Support the use of school nurses in all schools.	Identify an individual to act as an asthma champion for the school community and advocate for the presence of a school nurse.

Roles and responsibilities for creating asthma friendly schools		
	School Nurse	**Teacher**
Identify students with asthma	Ensure that your school has a process to identify children with asthma at your school. Work with parents/guardians, students and physicians to create healthcare plans for students with asthma.	Distribute and collect health history forms from students. Collect medication authorization forms and asthma action plans for students in your class with asthma.
Allow students easy access to their inhalers	Ensure completion of medication authorization forms, asthma action plans and individualized healthcare plans. Ensure the school has a safe, accessible location to store back-up asthma medications.	Encourage students to carry their own inhalers or store them in a safe, accessible location. Feel comfortable with your ability to assist a student in using an inhaler (page 26).
Create school wide protocol for handling an asthma episode	Educate teachers and other staff about protocol for handling an hma episode. Ensure that school staff know how to contact you if a student has an attack.	Know the protocol for handling an asthma episode. For each student with asthma in your classroom, keep an asthma action plan.
Identify and reduce common asthma triggers	Work with students who have frequent asthma symptoms to identify triggers and advocate for environmental changes to reduce exposures in the school.	Know students' asthma triggers and take action to reduce them when possible. Ensure proper ventilation of classroom and avoid strong cleaners and chemicals.
Enable students with asthma to participate in school activities	Educate health enhancement teachers and coaches about pretreatment for asthma. Advocate for easy access to medications during recess and gym class.	Modify activities for children with asthma. Avoid extreme temperatures and allow a period of warm up before physical activity.
Provide education to personnel, parents and students	Seek out continuing education about pediatric asthma care. Consider becoming a certified asthma educator. (See www.naecb.org) Provide education to other school staff about the disease as needed.	Use asthma resources to learn more about handling asthma (page 18). Work with school nurse to implement care plan for students in your class with asthma.
Collaborate with families, students, staff and healthcare providers	Coordinate communication between healthcare providers, parents/guardians and the school to optimize student care. Communicate with parents/guardians if you notice persistent/worsening asthma symptoms.	Inform parents/guardians, school nurse and administrators when students show signs of worsening asthma or have frequent symptoms.

Roles and responsibilities for creating asthma friendly schools		
	Office staff	**Maintenance Staff**
Identify students with asthma	Assist in the distribution of health history forms, medication authorization forms and asthma action plans.	If possible, identify which children are affected by asthma in which classrooms.
Allow students easy access to their inhalers	Provide for safe, accessible storage of asthma and anaphylaxis medication as needed.	Understand and respect asthma medication policies including the right of students to self-carry their rescue medication.
Create school wide protocol for handling an asthma episode	Know the protocol for handling an asthma episode and feel comfortable assisting a student with the use of his/her inhaler (page 26).	Know the protocol for handling an asthma episode.
Identify and reduce common asthma triggers	Recognize common asthma triggers in the school environment (page 14) and alert maintenance staff if triggers are present.	Work to reduce triggers, especially in classrooms where children have asthma. Use low VOC cleaners. Consult "Tools for Schools" IAQ Action Kit to aid in trigger reduction (page 13-14).
Provide education to personnel, parents and students	Review asthma related education materials (page 18), including how to respond when a child's asthma worsens (page 12).	Learn more about simple ways to reduce asthma triggers in the school setting. (See epa.gov/iaq/schools/asthma.html)
Collaborate with families, students, staff and healthcare providers	Work with school nurse, teachers and administrators to provide a safe environment for students with asthma and coordinate emergency response efforts.	Work with administrators, teachers and school nurse in efforts to reduce asthma triggers in your school.

Roles and responsibilities for creating asthma friendly schools		
	Bus driver	**Healthcare provider**
Identify students with asthma	Know which students on your bus have asthma. Ask them if they are sensitive to diesel exhaust, cold temperatures or specific allergens.	Ensure that all school age children in your practice with asthma are given medication authorization forms and asthma action plans to provide to the school each year.
Allow students easy access to their inhalers	Understand school's policies related to carrying asthma medication. Allow students with medication authorization forms to carry rescue medication on the school bus.	Educate students about how to self-carry and administer their asthma medication. If students are not able to self-carry, work with parents/guardians and the school nurse to create a plan for medication access at school.
Create school wide protocol for handling an asthma episode	Know school protocol for handling an asthma episode and display it in the bus if possible. Feel comfortable with your ability to respond if a student has an asthma attack.	Work with the parent/guardian child and school nurse to create an individualized asthma action plan for school. Work with the school nurse and parent/guardian to support the plan's implementation at school.
Identify and reduce common asthma triggers	Reduce diesel emissions by not idling near the school building. Work with school administrators and other bus drivers to create a school-wide "no idle" policy.	On the student's asthma action plan, list student-specific triggers. Work with parents/guardians and student on ways to avoid environmental triggers both at home and at school.
Enable students with asthma to participate in school activities	At out-of-town school activities, turn off school bus engines to reduce diesel emissions.	If students have exercise induced asthma, create protocol for pretreatment. Provide copy of the protocol to the school.
Provide education to personnel, parents and students	Educate yourself on how to assist students with asthma. Learn more about the health effects of diesel emissions at www.epa.gov/cleanschoolbus	Educate students and parents/guardians about the proper use of medications and asthma action plans. Work with school nurses to advocate for proper health procedures in schools.
Collaborate with families, students, staff and healthcare providers	Work with students, parents/guardians and school staff to make your bus a safe place for students with asthma.	Work closely with parents/guardians, students and school nurses to ensure safety and health at school.

Roles and responsibilities for creating asthma friendly schools		
	Parents/Guardians	**Students**
Identify students with asthma	Provide copies of the health history form and medication authorization form to the school. Contact the school nurse to discuss your child's asthma at the beginning of the school year.	Take home health history form and medication authorization form and return them to your teacher, signed by both your parent/guardian and healthcare provider.
Allow students easy access to their inhalers	Find out your school's asthma medication policy. Be sure your child has easy access to rescue medication.	Have your inhaler with you at all times or know where it is stored. Know how to safely use your inhaler when you have symptoms.
Create school wide protocol for handling an asthma episode	Work with the school nurse or your child's healthcare provider to create an asthma action plan describing what to do if your child has an asthma episode at school.	Give your teacher a copy of your asthma action plan. Tell your teacher when your asthma is bothering you.
Identify and reduce common asthma triggers	Let your child's teacher know what triggers can affect his/her asthma. Educate your child about his/her triggers and how to avoid them.	Know your asthma triggers and have a plan for handling them. Let your teacher know if you think that anything in the school is affecting your asthma.
Enable students with asthma to participate in school activities	Review with your child how to prevent and handle symptoms related to exercise.	Bring your rescue inhaler to outdoor activities, field trips and gym class. Communicate with your teachers if an activity is causing your asthma to flare.
Provide education to personnel, parents and students	Educate your child about recognizing symptoms of worsening asthma, communicating with an adult when in need of help, and using rescue medication.	Learn about asthma by attending educational programs, reading about asthma, and talking with your healthcare provider and school nurse.
Collaborate with families, students, staff and healthcare providers	Work with your school to create an asthma friendly environment for your child. Advocate for good asthma policies and asthma education.	Talk with your teachers, substitutes, school nurse, and other adults at school about your asthma and how they can help you.

Other Resources:
Two Main Types of Asthma Medications

Quick relief or rescue medications

Rescue medications are used in response to asthma symptoms. These medications provide relief immediately by dilating the airways. All individuals with asthma need access to quick relief inhalers in case of an asthma attack. The names of these rescue medications often end in "ol" (e.g., albuterol).

Rescue medications are the primary medication that you will see in the school setting. Schools should have policies in place to allow students easy access to rescue inhalers in case of an attack. Easy access to rescue medications can prevent a student from having escalating symptoms and/or requiring emergency medical care.

Rescue medications can also be used to pre-treat for exercise induced asthma. Inhalers should be used 10-15 minutes before exercise as indicated by a healthcare provider.

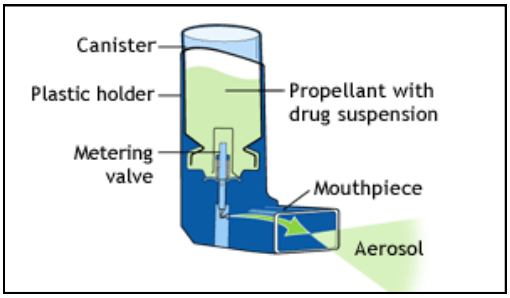
Access to and proper use of rescue inhalers is critical to the health of students with asthma. Key school staff should be trained to assist students who use these inhalers (see adjacent page).

Controller medications

Controller medications are used by children with more severe, persistent asthma to reduce the inflammation of their airways. These medicines are taken daily to prevent asthma attacks. The most common controller medications are inhaled corticosteroids. Unlike anabolic steroids used illegally by athletes to enhance performance, inhaled corticosteroids are safe and effective, and do not cause harmful side effects.

Most controller medications should be taken at home and not used in the school setting. If you see a child carrying controller medications, consult their asthma action plan and work with their healthcare provider and parents/guardians to ensure that use of the medication in school is necessary. Common controller medications include: Flovent Pulmicort, Symbicort, Advair, and Singulair. These medications come in the form of metered dose inhalers, dry powder inhalers and pills.

Proper use of inhalers and spacers

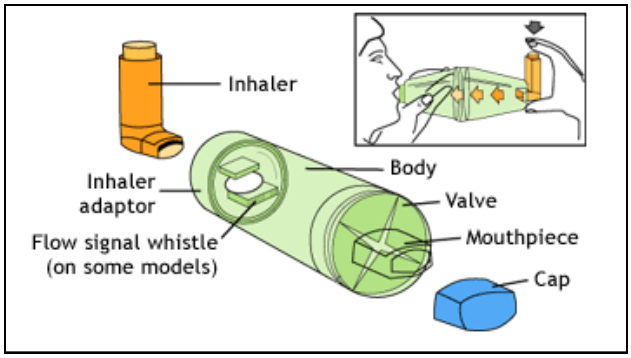


Use of a Metered Dose Inhaler without a Spacer

Most asthma rescue medications come in the form of metered dose inhalers (MDI). A metered dose inhaler is a pressurized canister of medicine that is sprayed through a mouthpiece. You can help a student follow these simple steps to properly use their MDI.[10]

1. Remove cap and shake inhaler
2. Tilt head back and breathe out
3. Hold the inhaler two finger widths away from open mouth
4. Compress the canister
5. Breathe in slowly for 3-5 seconds
6. Hold breath for 5-10 seconds
7. Wait at least one minute and repeat puffs as recommended by healthcare provider

For more information on using MDIs, visit http://www.aafa.org/media/1686/quick-asthma-inhalers-card.pdf



Proper use of a Metered Dose Inhaler with a Spacer

Some students will take their rescue medication using a spacer. A spacer is an attachment for the inhaler that makes it easier to use and can help the student inhale more medication. To properly use a spacer:[10]

1. Remove the mouthpiece, attach the spacer to the MDI and shake 4-5 times
2. Take in one breath and exhale
3. Close lips firmly around the spacer mouthpiece
4. Press the inhaler and immediately breathe in through your mouth, slowly and deeply
5. Hold your breath for five to ten seconds, take spacer away from mouth and breathe out normally; repeat puffs as recommended by healthcare provider

Other Resources: Sports during wildfire season

Recommendations for Outdoor Activities Based on Air Quality for Schools and Child Care Facilities					
Health Effect Category	**Good**	**Moderate**	**Unhealthy for sensitive groups***	**Unhealthy**	**Very Unhealthy/ Hazardous**
Visibility (miles)	**13+**	**9-13**	**5-9**	**2-5**	**Less than 2**
NowCast Concentration ($\mu g/m^3$)	**≤ 12**	**12 - 35**	**35 - 55**	**55 - 150**	**150 +**
Recess or Other Outdoor Activity (15 minutes)	No limitations	No limitations	Make indoor space available for all children to be active, especially young children. If outdoors, limit vigorous activities and people with chronic conditions should be medically managing their condition.	Keep all children indoors.	Keep all children indoors.
Physical Education Class (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Make indoor space available for all children to be active, especially young children. If outdoors, limit vigorous activities and people with chronic conditions should be medically managing their condition.	Conduct P.E. indoors. If outdoors, only allow light activities for all participants. People with chronic conditions should be medically managing their condition.	Conduct P.E. in a safe (good air quality) indoor environment.
Athletic Practice, Training (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	People with chronic conditions should be medically managing their condition. Increase rest periods and substitutions for all participants to lower breathing rates.	Conduct practice and trainings indoors. If outdoors, allow only light activities for all participants. Add rest breaks or substitutions to lower breathing rates. People with chronic conditions should be medically managing their condition.	Conduct practice and trainings in a safe (good air quality) indoor environment.
Scheduled Sporting Events (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	People with chronic conditions should be medically managing their condition. Increase rest periods and substitutions for all participants to lower breathing rates.	Consider rescheduling or relocating event. If outdoor event is held, have emergency medical support immediately available. Add rest breaks or substitutions to lower breathing rates. People with chronic conditions should be medically managing their condition.	Reschedule or relocate event.
Examples of light activities: Walking slowly on level ground Carrying school books Hanging out with friends			Examples of moderate activities: Skateboarding Slow pitch softball Shooting basketballs	Examples of vigorous activities: Running, jogging Playing football, soccer, and basketball	Please note that the intensity of an activity can vary by person and ability

Other Resources:
Allergies, Anaphylaxis and EpiPens®

Anaphylaxis

Anaphylaxis is a life threatening allergic reaction that can be fatal within minutes. Anaphylaxis can be a reaction to: food (commonly nuts, fish, wheat, or eggs), stinging insects, some types of medications, latex, or exercise (rarely).

Symptoms of anaphylaxis include:[11]

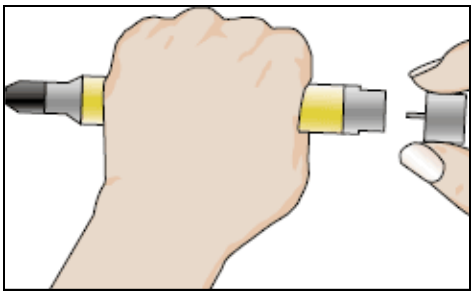
- Itching and/or hives, particularly in the mouth or throat
- Swelling of the throat, lips, tongue and/or eye area
- Difficulty breathing, swallowing or speaking
- Increased heart rate and/or sense of impending doom
- Abdominal cramps, nausea, vomiting, diarrhea
- Weakness, collapse, paleness, lightheadedness, or loss of consciousness

It is important to act quickly if a student experiences an anaphylactic reaction at school. Use an EpiPen® auto-injector as prescribed by a healthcare provider and call 911 or take the student to the emergency room immediately.

For children with severe allergies, create an "Allergy Action Plan" similar to an Asthma Action Plan for children with asthma. An example of an Allergy Action Plan is located on pages 29-30.

For more information on anaphylaxis, visit:
http://www.aafa.org/anaphylaxis-in-america/

Using an EpiPen® Autoinjector[10]



Storage:

- Store at room temperature (59-86° F).
- Keep in a dark area.
- Keep track of expiration date and replace the EpiPen® before it expires.
- Talk to your school nurse about providing classes on EpiPen® use.

Using the EpiPen®

- Form a fist around the EpiPen®, with black tip pointing downward.
- With other hand, remove gray safety cap. DO NOT touch the black tip as this is where the needle comes out.
- Push black tip firmly against outer thigh for 5 to 10 seconds.
- Remove and massage injection area for a few seconds.
- Check black tip: if needle is exposed, you received dose. If not, repeat previous steps.
- Call 911 or go to the closest emergency room. The effects of the EpiPen® will only last 15-20 minutes.

Other Resources: Food Allergy Action Plan[11]

FARE Food Allergy Research & Education

FOOD ALLERGY & ANAPHYLAXIS EMERGENCY CARE PLAN

PLACE PICTURE HERE

Name: _____ D.O.B.: _____

Allergy to: _____

Weight: _____ lbs. Asthma: ☐ **Yes (higher risk for a severe reaction)** ☐ **No**

NOTE: Do not depend on antihistamines or inhalers (bronchodilators) to treat a severe reaction. USE EPINEPHRINE.

Extremely reactive to the following allergens: _____

THEREFORE:

☐ If checked, give epinephrine immediately if the allergen was LIKELY eaten, for ANY symptoms.

☐ If checked, give epinephrine immediately if the allergen was DEFINITELY eaten, even if no symptoms are apparent.

FOR **ANY** OF THE FOLLOWING:

SEVERE SYMPTOMS

LUNG — Shortness of breath, wheezing, repetitive cough

HEART — Pale or bluish skin, faintness, weak pulse, dizziness

THROAT — Tight or hoarse throat, trouble breathing or swallowing

MOUTH — Significant swelling of the tongue or lips

SKIN — Many hives over body, widespread redness

GUT — Repetitive vomiting, severe diarrhea

OTHER — Feeling something bad is about to happen, anxiety, confusion

OR A COMBINATION of symptoms from different body areas.

1. **INJECT EPINEPHRINE IMMEDIATELY.**
2. **Call 911.** Tell emergency dispatcher the person is having anaphylaxis and may need epinephrine when emergency responders arrive.

- Consider giving additional medications following epinephrine:
  - » Antihistamine
  - » Inhaler (bronchodilator) if wheezing
- Lay the person flat, raise legs and keep warm. If breathing is difficult or they are vomiting, let them sit up or lie on their side.
- If symptoms do not improve, or symptoms return, more doses of epinephrine can be given about 5 minutes or more after the last dose.
- Alert emergency contacts.
- Transport patient to ER, even if symptoms resolve. Patient should remain in ER for at least 4 hours because symptoms may return.

MILD SYMPTOMS

NOSE — Itchy or runny nose, sneezing

MOUTH — Itchy mouth

SKIN — A few hives, mild itch

GUT — Mild nausea or discomfort

FOR **MILD SYMPTOMS** FROM **MORE THAN ONE** SYSTEM AREA, GIVE EPINEPHRINE.

FOR **MILD SYMPTOMS** FROM **A SINGLE SYSTEM** AREA, FOLLOW THE DIRECTIONS BELOW:

1. Antihistamines may be given, if ordered by a healthcare provider.
2. Stay with the person; alert emergency contacts.
3. Watch closely for changes. If symptoms worsen, give epinephrine.

MEDICATIONS/DOSES

Epinephrine Brand or Generic: _____

Epinephrine Dose: ☐ 0.15 mg IM ☐ 0.3 mg IM

Antihistamine Brand or Generic: _____

Antihistamine Dose: _____

Other (e.g., inhaler-bronchodilator if wheezing): _____

PATIENT OR PARENT/GUARDIAN AUTHORIZATION SIGNATURE | DATE | PHYSICIAN/HCP AUTHORIZATION SIGNATURE | DATE

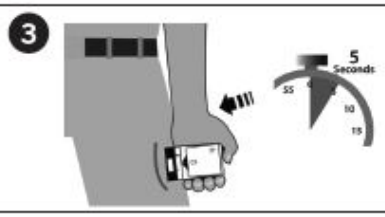
FORM PROVIDED COURTESY OF FOOD ALLERGY RESEARCH & EDUCATION (FARE) (FOODALLERGY.ORG) 4/2017

FOOD ALLERGY & ANAPHYLAXIS EMERGENCY CARE PLAN

FARE Food Allergy Research & Education

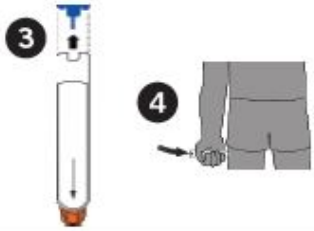
HOW TO USE AUVI-Q® (EPINEPHRINE INJECTION, USP), KALEO

1. Remove Auvi-Q from the outer case.
2. Pull off red safety guard.
3. Place black end of Auvi-Q against the middle of the outer thigh.
4. Press firmly, and hold in place for 5 seconds.
5. Call 911 and get emergency medical help right away.



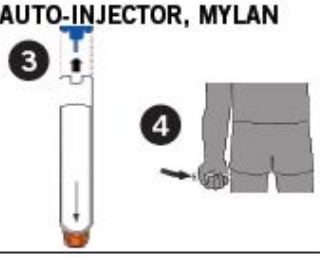
HOW TO USE EPIPEN® AND EPIPEN JR® (EPINEPHRINE) AUTO-INJECTOR, MYLAN

1. Remove the EpiPen® or EpiPen Jr® Auto-Injector from the clear carrier tube.
2. Grasp the auto-injector in your fist with the orange tip (needle end) pointing downward.
3. With your other hand, remove the blue safety release by pulling straight up.
4. Swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks'.
5. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
6. Remove and massage the injection area for 10 seconds.
7. Call 911 and get emergency medical help right away.



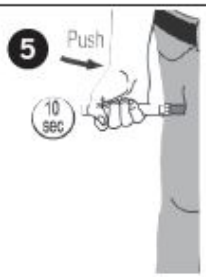
HOW TO USE EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF EPIPEN®), USP AUTO-INJECTOR, MYLAN

1. Remove the epinephrine auto-injector from the clear carrier tube.
2. Grasp the auto-injector in your fist with the orange tip (needle end) pointing downward.
3. With your other hand, remove the blue safety release by pulling straight up.
4. Swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks'.
5. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
6. Remove and massage the injection area for 10 seconds.
7. Call 911 and get emergency medical help right away.



HOW TO USE IMPAX EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF ADRENACLICK®), USP AUTO-INJECTOR, IMPAX LABORATORIES

1. Remove epinephrine auto-injector from its protective carrying case.
2. Pull off both blue end caps: you will now see a red tip.
3. Grasp the auto-injector in your fist with the red tip pointing downward.
4. Put the red tip against the middle of the outer thigh at a 90-degree angle, perpendicular to the thigh.
5. Press down hard and hold firmly against the thigh for approximately 10 seconds.
6. Remove and massage the area for 10 seconds.
7. Call 911 and get emergency medical help right away.



ADMINISTRATION AND SAFETY INFORMATION FOR ALL AUTO-INJECTORS:

1. Do not put your thumb, fingers or hand over the tip of the auto-injector or inject into any body part other than mid-outer thigh. In case of accidental injection, go immediately to the nearest emergency room.
2. If administering to a young child, hold their leg firmly in place before and during injection to prevent injuries.
3. Epinephrine can be injected through clothing if needed.
4. Call 911 immediately after injection.

OTHER DIRECTIONS/INFORMATION (may self-carry epinephrine, may self-administer epinephrine, etc.):

Treat the person before calling emergency contacts. The first signs of a reaction can be mild, but symptoms can worsen quickly.

EMERGENCY CONTACTS — CALL 911

RESCUE SQUAD: _____

DOCTOR: _____ PHONE: _____

PARENT/GUARDIAN: _____ PHONE: _____

OTHER EMERGENCY CONTACTS

NAME/RELATIONSHIP: _____

PHONE: _____

NAME/RELATIONSHIP: _____

PHONE: _____

FORM PROVIDED COURTESY OF FOOD ALLERGY RESEARCH & EDUCATION (FARE) (FOODALLERGY.ORG) 4/2017

Other Resources:
Role of school nurses in asthma management

APPLICATION OF THE NURSING PROCESS TO STUDENTS WITH ASTHMA

Sue A. Buswell, RN, MS, NCSN
President, Montana Association of School Nurses
December, 2009

School nurses play a vital role in creating asthma friendly schools. Nurses provide professional healthcare services to students that no other school staff are equipped to offer. Below is an outline for school nurses describing ways to apply the nursing process to help students manage their asthma at school.

ASSESSMENT

Identify student with asthma

- Collect and review Health History Sheets
- Review previous records at the start of each school year.

Contact parent of identified student to assess:

- Past history of asthma
- Current health status
- Asthma triggers
- Current medications and treatments, use of rescue inhaler, aerochamber, peak flow meter, or nebulizer
- Parent's perception of the student's developmental level and readiness to self-carry and self-administer asthma medications
- Recommendations of the parent
- Phone numbers and emergency contacts

Interview student to assess:

- Knowledge of asthma
- Self-assessment skills
- Technique in medication administration
- Appropriate use of peak flow meter

Communicate with physician to assess:

- Asthma action plan
- Medication orders
- Authorization to self-administer medications

For more information, go to the National Association of School Nurses website at www.nasn.org.

NURSING DIAGNOSIS

Establish nursing diagnoses, for example:

- Bronchial constriction
- Ineffective individual coping
- Self-esteem disturbance

PLAN

Collaborate with student, parent, physician, and teacher

- Educate student and family to become partners in their own care.
- Elicit physician and parent input and signatures on School Asthma Action Plans as dictated by school policies, State Nurse Practice Act, and State and Federal Law.
- Communicate with teachers and school staff regarding class schedules, availability of accommodations.

Develop written School Asthma Action Plan (Individualized Health Care Plan) that includes an Emergency Plan

- Provide for availability of medication and storage of back-up medication.
- Assign assistive personnel to administer medication and provide documentation in the absence of the school nurse.
- Teach assistive personnel to provide medications in a safe and appropriate manner in the absence of the school nurse.
- Provide for storage of necessary equipment such as peak flow meter, nebulizer.
- Develop schedule for peak flow monitoring, if planned.
- Provide controls for environmental triggers at school.
- Provide for easy access to pre-medication prior to exercise, if ordered.
- Arrange for asthma medications and School Asthma Action Plan to be taken on field trips.
- Arrange for staff to communicate with school nurse in an emergency and provide emergency phone number of school nurse or back-up nurse on all care plans and communications.
- Educate assistive personnel, teachers, and other school staff in the effective use of individual asthma action plans.

INTERVENTION

- Communicate the School Asthma Action Plan to student and parent. Provide educational opportunities.
- Communicate the School Asthma Action Plan to all appropriate school contacts as school policy dictates. Provide education.
- Inform teachers about individual students in their classes who have asthma and may need assistance in an asthma attack. Provide education.
- Utilize nursing interventions in treatment of acute asthma episodes.
- Delegate medication administration or teach unlicensed personnel in providing medications in an emergency.
- Contact parent and physician as necessary to evaluate the School Asthma Action Plan and Emergency Plan. Provide for revision when indicated.

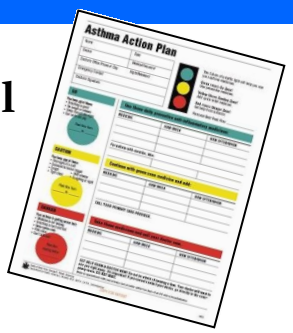
EVALUATION

Periodic evaluation of student records and communication with student and parent to compare present status with past history:

- Frequency of acute asthma episodes
- Peak flow readings
- Effectiveness of medications in controlling acute asthma episodes at school
- Frequency of school absences
- Ability to participate in all school activities
- Student's technique in using medications and ability to maintain availability of medications if self-administering
- Expiration date and amount of medication available in medication canister

Monthly review of medication records and technique of unlicensed assistive personnel who have been delegated the task of medication administration.

Other Resources:
Using Asthma Action Plans in your school



Steps for using Asthma Action Plans (AAPs) at your school

1. **Choose a form.**

   There are many types of student AAPs. Choose one to promote in your school that fits your academic setting. A Montana-specific AAP example is included on page 8 of this document. Other examples include:

   - AAFA Student Asthma Action Card
   - CDC Student AAP
   - Maine Student AAP

2. **Designate an AAP staff member.**

   One staff person at your school should be responsible for ensuring that each student with asthma has an AAP. **Ideally, this staff member should be a school nurse.** If your AAP staff member is a school nurse, he or she can write a student's AAP, as long as the student's health-care provider and parents/guardians sign off on it. If your school does not have a nurse, responsibility for creating the AAP will fall to the healthcare provider and/or parents/guardians of the student with asthma. The AAP staff member should work with these parties to ensure completion of the plan and oversee its implementation in the school setting.

3. **Educate healthcare providers, parents/guardians and teachers.**

   Ensuring completion and utilization of AAPs takes coordination between families, healthcare providers and school staff. Parents/guardians and healthcare providers may need education on the importance of having an AAP, and teachers, office staff, and others need training on how and when to use it in the school setting. The AAP staff member can provide this education.

4. **Gather those signatures!**

   Each student AAP should be reviewed and signed by three parties:

   - The student's healthcare provider
   - The student's parent or guardian
   - The school nurse/emergency staff person

   These signatures ensure that the school is protected from liability and that all important parties are aware of the plan of action for the student with asthma. The Montana Student AAP on page 8 of this document includes fax numbers for the school and the student's healthcare provider, so that copies of the AAP can be easily sent back and forth.

5. **Ensure easy access to the AAP.**

   A copy of each student's AAP should be kept 1) with each asthma inhaler at the school-whether the medication is stored or self-carried; 2) in the health office; and 3) in the student's primary classrooms. Ensure that AAPs are securely stored to protect students' confidentiality.

References and Acknowledgements

References

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3. Moonie, S., Sterling, D.A., Figgs, L.W., & Castro, M. (2008) *The relationship between school absence, academic performance, and asthma status.* Journal of School Health. 78(3):140-8
4. Adapted from "Five Steps to Follow for an Asthma Episode in the School Setting." Nassau-Suffolk Asthma Coalition. Used by permission.
5. Adapted from "Avoiding asthma trig-gers in the school environment." Missouri Department of Health and Human Services
6. Adapted from the American Lung Association's *Asthma Friendly Schools Initiative Toolkit.* "Ways to helps students participate in physical activity" www.lungusa.org
7. School Health Profiles, Montana Office of Public Instruction.
9. Minnesota Department of Health Asthma Program. www.health.state.mn.us/asthma
10. Adapted from Asthma and Allergy Foundation of America's Quick Asthma and Allergy Cards.
11. Food Allergy Action Plan. *Food Allergy and Anaphylaxis Network.* www.foodallergy.org

Acknowledgements

This resource guide was developed by Montana Team Asthma, a group comprised of members from:

- School Administrators of Montana
- Montana School Board Association
- Office of Public Instruction
- Montana Department of Public Heath and Human Services
- Montana Association of School Nurses

Developed with the assistance of and endorsed by:

Last update May 3, 2017