MANAGING ASTHMA IN NEW MEXICO SCHOOLS

I. LETTERS and ACKNOWLEDGEMENTS

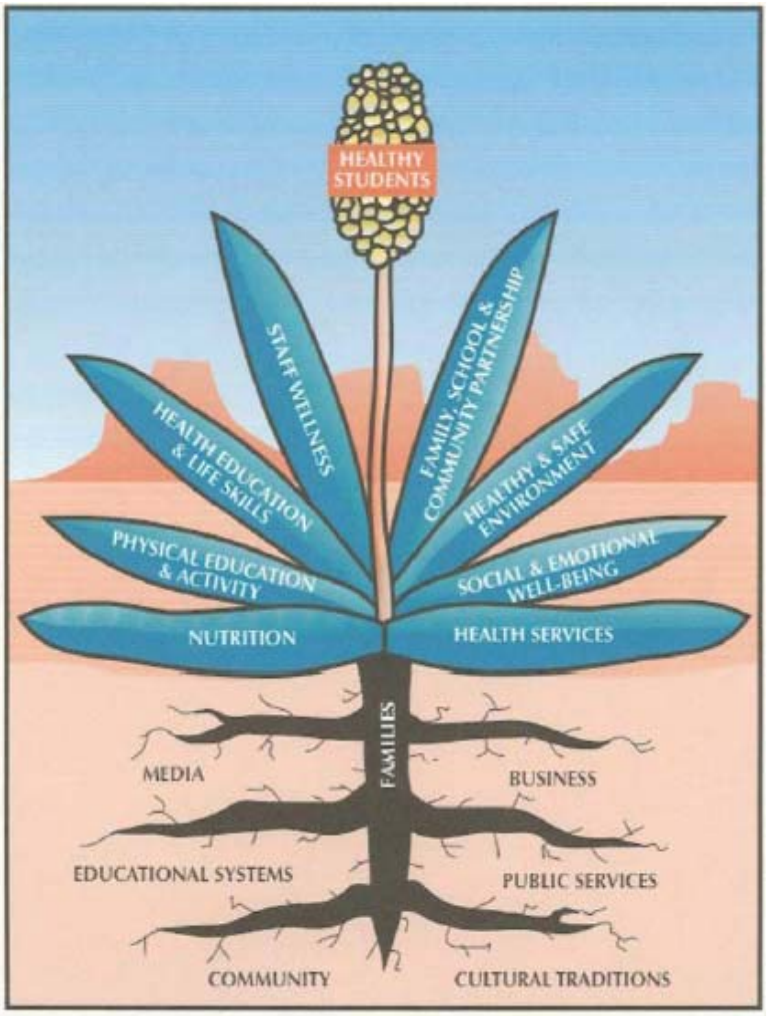


TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The development of *Managing Asthma in New Mexico Schools, A Resource Manual* began in 2006, through the "Addressing Asthma in Schools Committee". This group is comprised of individuals from various organizations and programs from across the State of New Mexico. This manual is a living document and will continue to evolve as updates are performed; i.e., as treatment protocols and management and educational guidelines change, etc.

Thanks and appreciation is expressed to the following individuals who devoted time and effort over the last few years in bringing this project to its current version. A special thanks is extended to those whose names have an *; they have given above and beyond toward this work.

Theresa J. Belanger, Clinic Coordinator, Region 2 **Children Medical Services** **New Mexico Department of Health**	**Geri Jaramillo, Asthma Health Educator (Manual Coordinator)** **Asthma Program** **New Mexico Department of Health**
Mary Blea, RN **Office of School and Adolescent Health** **New Mexico Department of Health**	**Madelyn Krassner, Program Manager, Region 2** **Children Medical Services** **New Mexico Department of Health**
Laura Brown, MD, Region 2 **Assistant Health Officer** **New Mexico Department of Health**	**Paula LeSueur, RN, CNP** **Envision New Mexico** **University of New Mexico**
Laura Burkhard, RN **Nurse Services** **Albuquerque Public Schools**	**Elizabeth Matthews, MD** **Medical Director, Family Health Bureau** **New Mexico Department of Health**
David Coffey, Health Educator **Environmental Health Epidemiology Bureau** **New Mexico Department of Health**	**Nancy Passikoff, RN** **School Nurse** **Des Moines Public Schools**
Nancy Cohrs **Educational Programs** **American Lung Association Arizona/New Mexico**	***Trudy Perry, RN, School Health Advocate, Region 2** **Office of School and Adolescent Health** **New Mexico Department of Health**
Judith Edwards, RN **Nurse Services** **Albuquerque Public Schools**	**Dotty Reilly, RN** **School Nurse** **Los Alamos Public Schools**
Pauline Electric-Warrior, Environmental Specialist **EPA Office** **Jicarilla Apache Nation**	**Gerri Rivers, Asthma Educator** **Co-founder** **Asthma Allies**
Georgia Glasgow, RN **Medicaid School-Based Services Coordinator** **Public Education Department**	***Carlos Romero** **Graphics & Website Consultant** **APEX Education**
Cindy Greenburg, RN **Nurse Services Coordinator** **Albuquerque Public Schools**	**Robert Sapien, MD** **Director, Division of Pediatric Emergency Medicine** **University of New Mexico**
Denine Gronseth, RN **Nurse Services** **Albuquerque Public Schools**	**Lilliana Talamantes, Asthma Health Educator** **Asthma Program** **New Mexico Department of Health**
Glenda Hubbard, Epidemiologist **Injury Prevention Bureau** **New Mexico Department of Health**	***Julianne Vollmer, Health Educator** **Environmental Health Epidemiology Bureau** **New Mexico Department of Health**

NEW MEXICO DEPARTMENT OF HEALTH

Alfredo Vigil, MD
Secretary

Building a Healthy New Mexico!

Bill Richardson, Governor

Katrina Hotrum
Deputy Secretary

Duffy Rodriguez
Deputy Secretary

Jessica Sutin
Deputy Secretary

Karen Armitage, MD
Chief Medical Officer

April 13, 2009

Dear Schools Staff, Students and Families,

On behalf of the New Mexico Department of Health, I am pleased to introduce Managing Asthma in New Mexico Schools, A Resource Manual. This manual was developed in collaboration with several programs within the Department of Health – the Environmental Health Epidemiology Bureau's Asthma Program, Office of School and Adolescent Health, Children's Medical Services and the Family Health Bureau; and with our partners - Albuquerque Public Schools; Public Education Department; and UNM Pediatric Pulmonary Division, among others.

Asthma is an inflammatory condition of the bronchial airways, where the muscles in the bronchial tubes and lining become constricted and swollen, making the airway passage smaller and making it more difficult to breath.

New Mexico Department of Health 2007 data indicate that 64,000 (8.6%) New Mexico children have asthma. Nationwide asthma is the most common serious disease among children and a leading cause of school absenteeism.

It is our hope that the tools and resources contained in Managing Asthma in New Mexico Schools, A Resource Manual will assist school staff, students, and families in maintaining a standard asthma care and management regime and best practices for asthma friendly school environments. We hope this manual will enhance the work schools already do to help students control their asthma and reduce missed school days due to asthma. As we all know, a child who has learned the essential skills to manage his or her asthma - visiting a health care provider and school nurse, taking medication as prescribed and avoiding triggers - will be more receptive participants in daily school activities.

The information provided herein is consistent with the latest national guidelines for the diagnosis and management of asthma and with the information used by our partners – the Public Education Department and Albuquerque Public Schools.

There is currently no cure for asthma, but with medications and proper management, we can control it. This manual can greatly assist our schools in providing our children with the resources and skills to lead healthy and productive lives and successful school years.

Thank you,

Alfredo Vigil, MD
Secretary

Office of the Secretary • 1190 St. Francis Drive, N4100 • P.O. Box 26110
Santa Fe, New Mexico • 87502-6110 • (505) 827-2613 • FAX: (505) 827-2530
http://www.nmhealth.org

STATE OF NEW MEXICO
PUBLIC EDUCATION DEPARTMENT
300 DON GASPAR
SANTA FE, NEW MEXICO 87501-2786
Telephone (505) 827-5800
www.ped.state.nm.us

DR. VERONICA C. GARCÍA
SECRETARY OF EDUCATION

BILL RICHARDSON
Governor

March 7 2009

Dear Fellow New Mexicans,

On behalf of the Public Education Department, I am pleased to introduce the newly revised, Managing Asthma in New Mexico Schools, A Resource Manual. This resource book was produced as a joint effort among programs and bureaus in the Department of Health (Asthma Program in the Environmental Health Epidemiology Bureau, Office of School and Adolescent Health, Children's Medical Services and Family Health Bureau); Public Education Department (School and Family Support Bureau); the Albuquerque Public Schools Health Services and other organizations.

The New Mexico Behavioral Risk Factor Surveillance System 2007 data indicates that 64,000 (8.6%) of New Mexico children have asthma. Asthma impacts families by burdening them in both direct medical costs and indirect costs (e.g., missed school days and work days).

This manual provides important and useful, general information about asthma, such as standards, recommended guidelines and protocols for nurses, teachers, families and other school staff to utilize in their daily work when identifying students with asthma and managing the disease. Finally, it describes the Asthma Friendly School Environmental Protocols we know help reduce allergy and asthma symptoms. This manual can be used by a varied section of the school community to help all of us maintain a safe and healthy learning environment for children with asthma and allergies and all students.

It is my hope that the valuable tools and resources in the Managing Asthma in New Mexico Schools, A Resource Manual will be of great help to all who work with our youth so that those students with asthma remain healthy and succeed academically.

Truly,

Veronica C. García, Ed.D.
Secretary of Education

VCG/GG/gg

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

II. INTRODUCTION

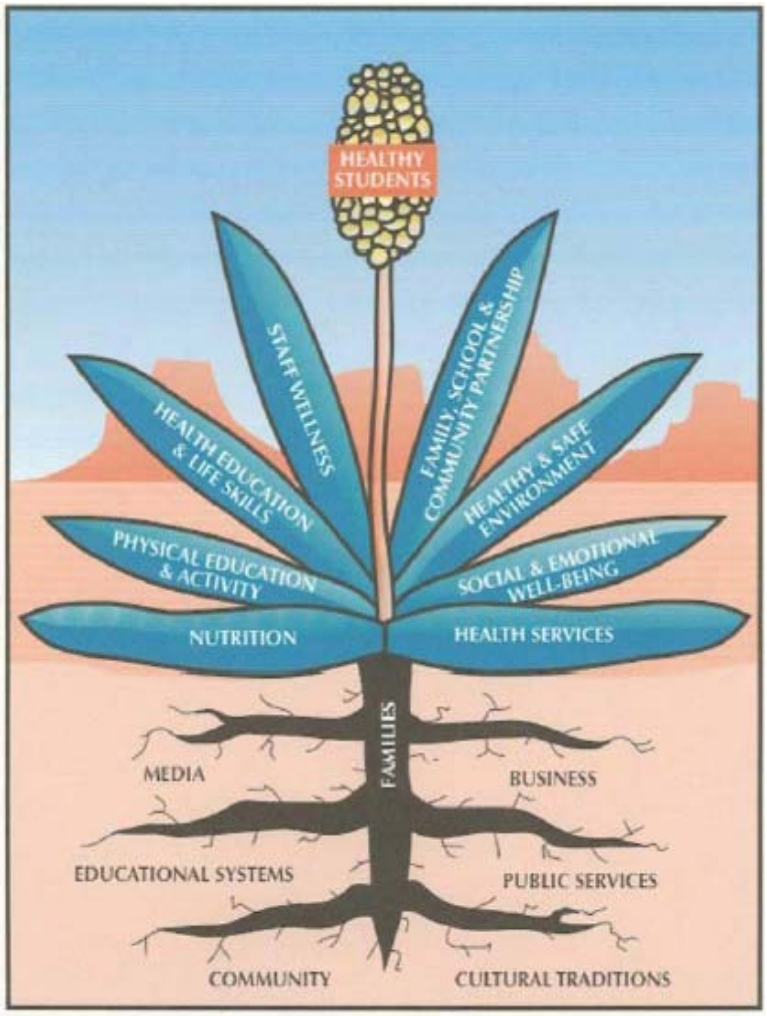


TABLE OF CONTENTS

Introductory Statement

The New Mexico Department of Health-Asthma Program (NMDOH-AP) recognizes the need to increase and promote asthma awareness across New Mexico by recommending the National Asthma Education and Prevention Program's Resolution on Asthma Management at School from the National Institute of Health-National Heart, Lung, and Blood Institute (NIH-NHLBI).

Asthma is a chronic, inflammatory condition of the lungs that makes it difficult to breathe. Asthma is characterized by excessive sensitivity of the lungs to various stimuli. Triggers range from viral infections to allergies, to irritating gases and particles in the air.

Asthma affects about 20 million Americans – about 9 million are children. New Mexico Department of Health 2007data show that just over 127,000 adults and 64,000 children have asthma. That is about 8.7% of New Mexico adults and about 8.6% of New Mexico children. This chronic lung disease causes unnecessary restriction of childhood activities and is a leading cause of school absenteeism. There is no cure for asthma, but it can be controlled. With proper treatment and support, children with asthma can lead full active lives. The National Asthma Education and Prevention Program (NAEPP) strongly encourages all schools to adopt policies for the management of asthma that encourage the active participation of students in the self-management of their condition and allow the most consistent, active participation in all school activities. These policies should allow:

A smoke-free environment for all school activities.

Access to health services supervised by a school nurse. These services should include identification of students with asthma; a written asthma management plan for each student with asthma; appropriate medical equipment; and the support of an adult, as appropriate, to evaluate, monitor, and report on the administration of medication to the parent/guardian and/or health provider.

A written medication policy that allows safe, reliable, and prompt access to medications in the least restrictive way during all school-related activities and self-managed administration of medication (including consideration of allowing students to carry and self-administer medications) consistent with the needs of the individual child and the safety of others.

A school-wide emergency plan for handling severe exacerbations of asthma.

Staff development for all school personnel regarding emergency procedures, school medication policies, and procedures for communicating health concerns about students.

Development of a supportive and healthy environment that respects the abilities and needs of each student with asthma."

The NMDOH Asthma Program and its partners developed *Managing Asthma in New Mexico Schools*, so that school districts will use it as a guide to enlist the cooperation of all members of the school community. **Sections 3-5** provide general information useful to the entire community. **Sections 6-14** contain specific asthma information pertinent to families and a variety of school staff. **Section 15** lists a variety of helpful resources for general use.

A coordinated effort, as presented by Healthier Schools-New Mexico and illustrated by the yucca and the corn stock models, is essential in promoting a healthy school environment for everyone, especially for student and staff members who are coping with asthma or other respiratory problems. This approach provides a framework for linking health and education. The focus is on the **blossom representing the healthy and successful student**. The **leaves symbolize the eight components of coordinated school health** – daily opportunities schools have to interact with children on health-related issues. The **root system is the nurturing network** that supplies the resources and energy for growth. The **tap root is the family**. The **family provides the environment in which children thrive and grow**. The **other roots represent the responsibilities that culture, education, public services, media, community, businesses, and others have in fostering healthier students.**

New Mexico's Coordinated School Health Model

The eight components of New Mexico's Coordinated School Health include:

Nutrition – The nutrition component supports the availability of healthy food that is the primary building block for each child's physical growth, brain development, and ability to resist disease. Food also affects a child's emotions, sense of well-being, and ability to learn.

Health Education and Life Skills – Health education and life skills, taught by a licensed health education specialist, is the school's instructional program that provides the opportunity for all students to understand and practice concepts related to health promotion and disease prevention.

Physical Education and Activity – Physical education, taught by a licensed physical education specialist, is the school's instructional program that provides the optimal opportunity for all students to learn and develop the skills, knowledge, and attitudes necessary to personally decide to participate in a lifetime of healthful physical activity.

Staff Wellness – Staff wellness promotes the health, safety, and well-being of school staff; the necessary support that maximizes the talents of all individuals; and creates an equitable, accessible, and productive work environment.

Family, School and Community Partnership – Family, school, and community partnership promotes long-term effective partnerships between families, schools, and communities in the planning and implementation of health promotion projects and events both within the school and throughout the community.

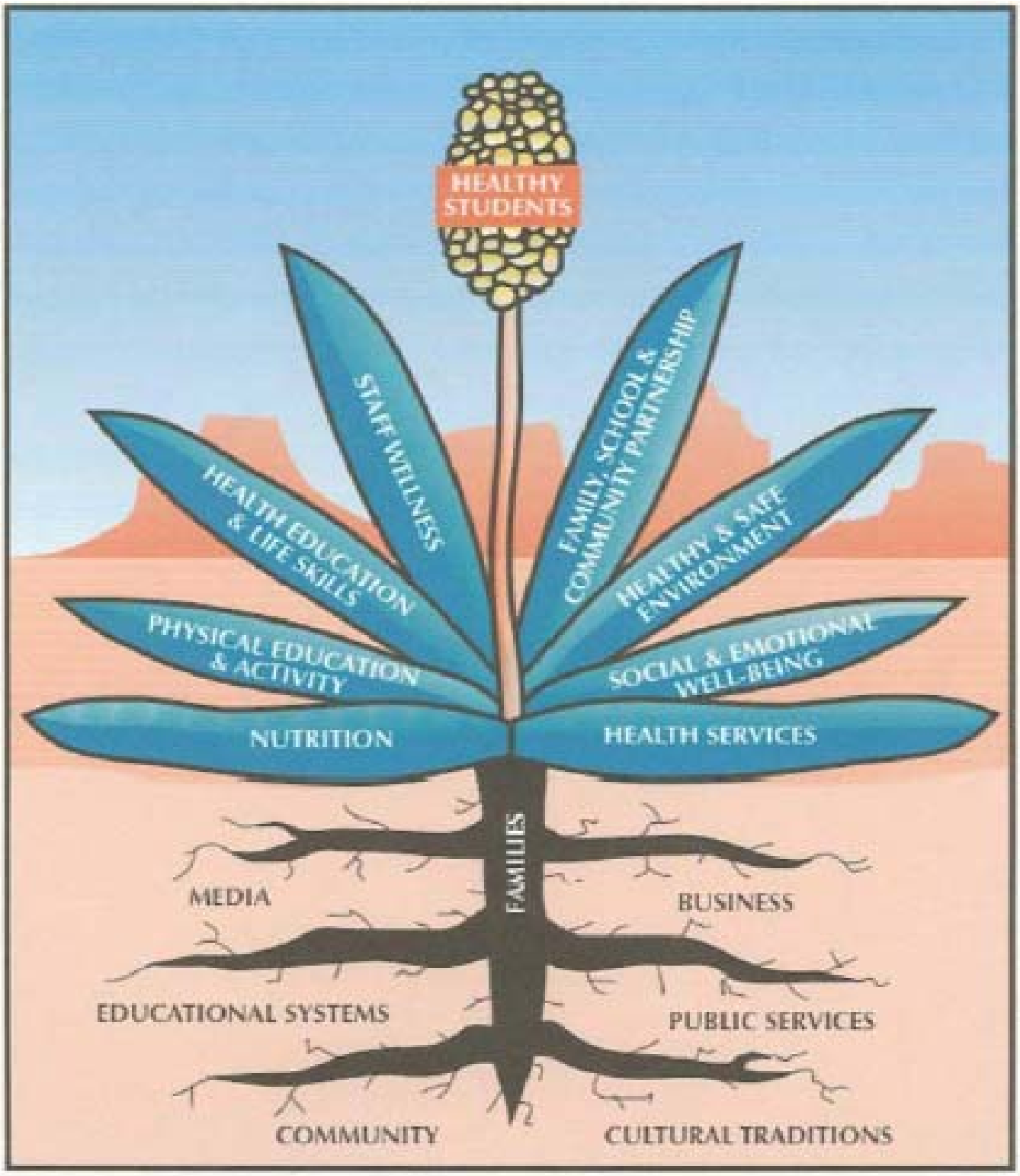
Health and Safe Environment – A healthy and safe school environment supports a total learning experience that promotes personal growth, healthy interpersonal relationships, wellness, and freedom from discrimination and abuse within a healthy physical environment.

Social and Emotional Well-Being – The social and emotional well-being supports a healthy school through programs and services that value the social and emotional well-being of students, families, and staff.

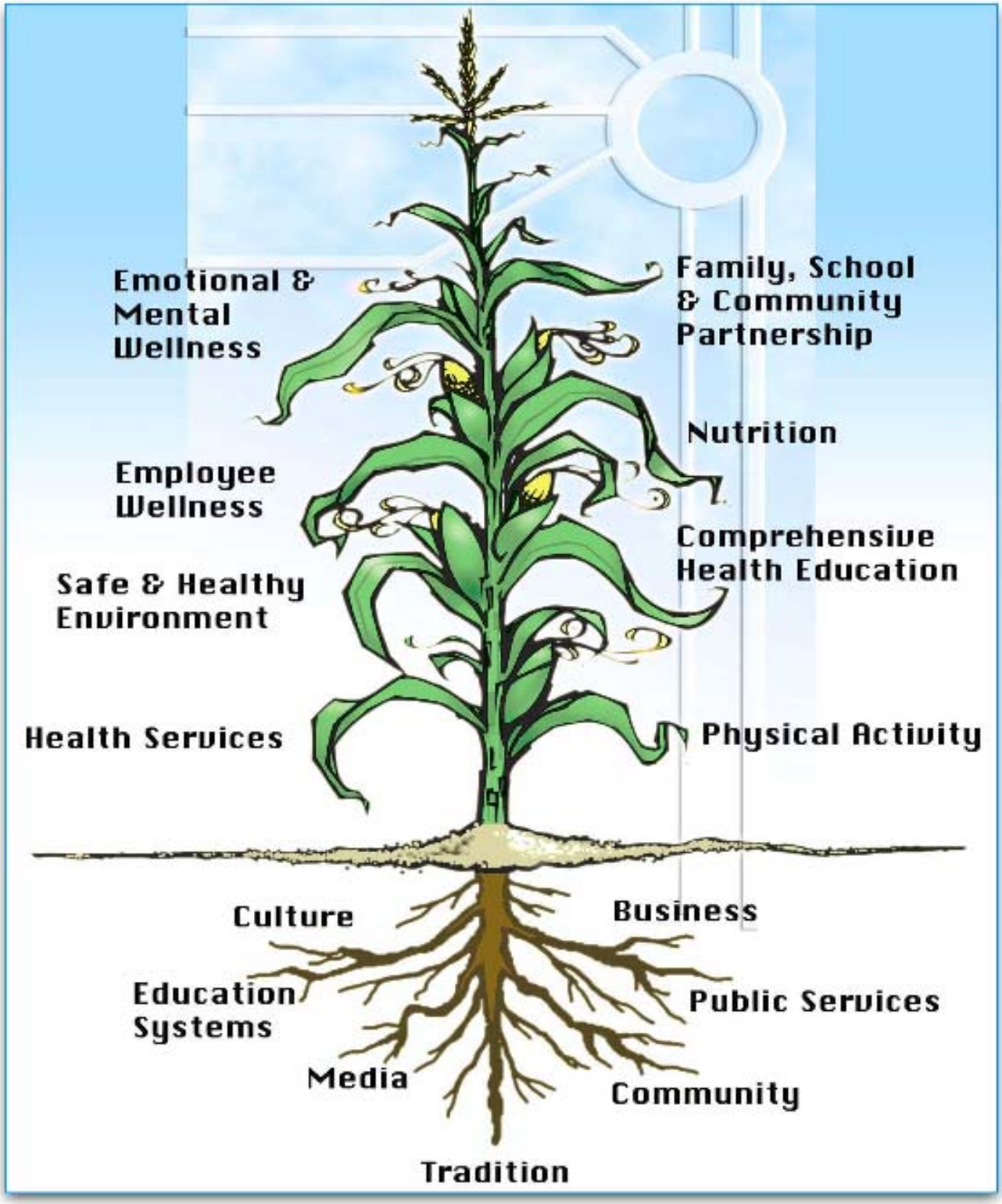
Health Services - The health services, staffed by qualified professional health care providers, provides a broad scope of services that address the physical and mental health needs of students and staff.

The Centers for Disease Prevention and Control (CDC) also provides strategies for addressing asthma within a coordinated school health program at: www.CDC.gov/HealthyYouth/asthma/strategies.htm.

NEW MEXICO COORDINTATED SCHOOL HEALTH



Navajo Coordinated School Health



STRATEGIES FOR ADDRESSING ASTHMA WITHIN A COORDINATED SCHOOL HEALTH PROGRAM

CHECKLIST	ACTIONS FOR DISTRICTS AND SCHOOLS	NOTES
Mark 'X' if school or district has fully implemented each action. Mark 'S' if some implementation has occurred. Mark 'P' if implementation is planned. Leave blank if this action has not been implemented.		
1. Management and Support Systems for Asthma-Friendly Schools		
☐	Are the school's or district's existing asthma needs, resources for meeting those needs, and potential barriers identified?	
☐	Is a person designated to coordinate asthma activities at the district and school levels?	Who?
☐	Does the district health council and the school health team review *Strategies* and ensure that school-based asthma management is addressed as a high priority?	Is a local asthma coalition involved?
☐	Are written policies and procedures regarding asthma education and management developed and implemented?	Which policies?
☐	Are the asthma programs used culturally and linguistically appropriate to students in your school/district?	
☐	Are existing school health and/or health room records used or adapted to identify all students with diagnosed asthma?	
☐	Are health room and attendance records used to track students with asthma?	
☐	Does your school or district focus particularly on students with poorly managed, moderate-to-severe persistent asthma?	
☐	Are 504 Plans or Individualized Education Plans (IEPs) appropriately used for health services and physical activity modifications?	
☐	Do top administrators and community leaders support addressing asthma within a coordinated school health program?	Who?
☐	Are there systems to promote ongoing communication among students, parents, teachers, school nurses, and health care providers to ensure that students' asthma is well-managed at school?	
☐	Does the school or district apply for available federal, state, and private funding for school asthma programs?	
☐	Are asthma program strategies and policies evaluated annually and used to improve programs?	
2. School Health and Mental Health Services		
☐	Does each student with asthma have a written asthma action plan on file at school?	If not, what percent?
☐	Do the asthma action plans include individualized emergency protocol, medications, peak flow monitoring, environmental triggers, and emergency contact information?	If not, what's missing?
☐	Do students have immediate access to medications, as prescribed by a physician and approved by parents?	
☐	Are students permitted to self-carry?	
☐	Is an extra quick-relief inhaler available in the health room?	
☐	Does the school or district have a standard emergency protocol for students in respiratory distress if they do not have their own asthma action plan?	
☐	Is case management provided for students with frequent school absences, school health office visits, emergency department	How many?

	visits, or hospitalizations due to asthma?	
□	Is there a full-time registered nurse all day, every day at each school?	If not, how many days/week? Hours per day What's the student/nurse ratio?
□	Is there a full-time trained and supervised health assistant?	If not, how many days/week? Hours per day?
□	Does each school have access to a consulting physician?	
□	Are students without a primary care provider referred to child health insurance programs and providers?	
□	Are school-based counseling, psychological, and social services for students with asthma provided, as appropriate?	
3. Asthma Education and Awareness Programs		
□	Do students with asthma receive education on asthma basics, asthma management, and emergency response?	
□	Are parents encouraged to participate in the asthma education programs?	
□	Do school staff receive education on asthma basics, asthma management, and emergency response as part of their professional development activities?	
□	Are all staff included?	
□	Are asthma awareness and lung health education lessons integrated into the health education curricula?	Which grades?
□	Are smoking prevention and cessation programs for students and staff provided and /or supported?	
4. Healthy School Environment		
□	Is tobacco use prohibited at all times, on all school property, in any form of school transportation, and at school-sponsored events on and off school property?	
□	Is the tobacco policy enforced?	
□	Are indoor air quality problems prevented by reducing or eliminating allergens and irritants, including tobacco smoke; dust and debris from construction and remodeling; dust mites, molds, warm-blooded animals, cockroaches, and other pests?	
□	Are integrated pest management (IPM) techniques used to control pests?	
5. Physical Education and Physical Activity		
□	Is full participation in physical activities encouraged when students are well?	
□	Are modified activities provided as indicated by a student's asthma action plan, 504 Plan, and/or individual education plan (IEP), as appropriate?	
□	Do students have access to preventive medications *before* activity and immediate access to emergency medications *during* activity?	
6. Family and Community Efforts		
□	Is written parental permission obtained for school health staff and primary care providers to share student health information?	
□	Are efforts made to educate, support, and involve family members in efforts to reduce students' asthma symptoms and school absences?	

☐	Does your school or district work with local community programs and coordinate school and community services?	
☐	Are interested school staff encouraged to participate in community asthma coalitions?	

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

III. ASTHMA OVERVIEW

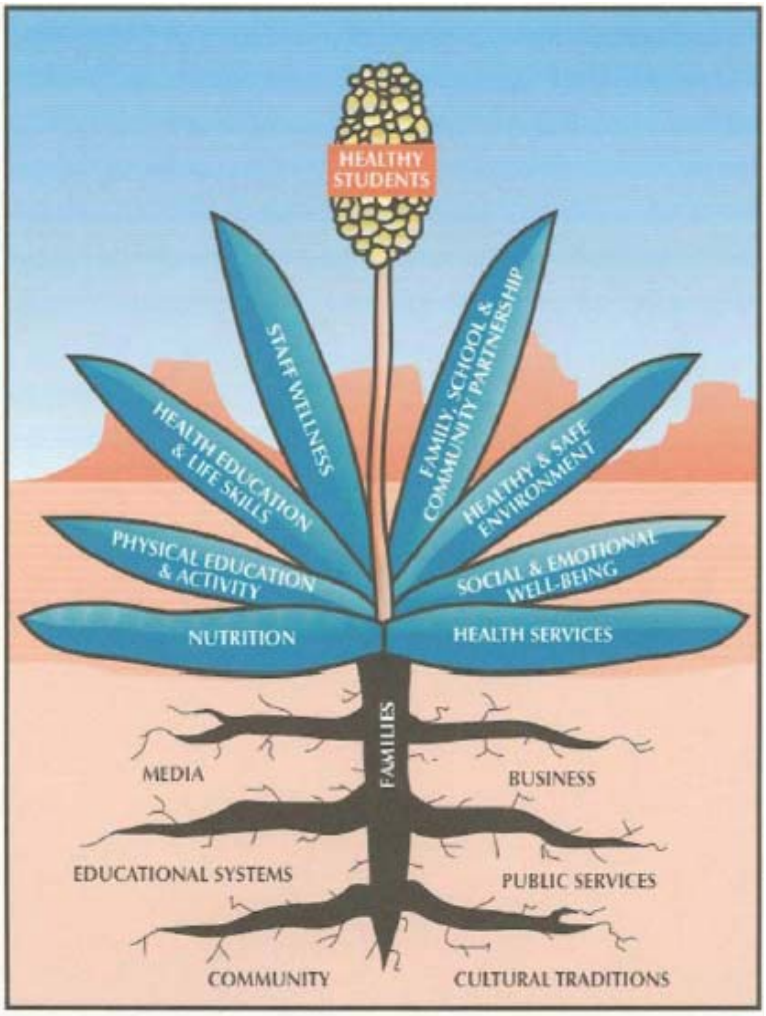


TABLE OF CONTENTS

What is Asthma?

Important Points

Asthma can cause severe breathing problems that are potentially life threatening.

Asthma is not contagious.

Asthma is a significant cause of school absenteeism.

Asthma cannot be cured, but it can be managed and controlled.

All members of the school community have a responsibility in providing a healthy school environment.

Asthma is a chronic inflammatory disorder of the airways. This means that it is a disease that affects the “tubes” that carry air in and out of the lungs. People with asthma have sensitive, hyperactive airways or “tubes” that react to any of a variety of "triggers." Cold weather, pollen, exercise, smoke, dust, animal dander, and respiratory illness are just a few of the common “triggers.” These "triggers" cause:

- inflammation or swelling in the airways
- constriction or tightening of the airway muscles
- mucous formation.

When this occurs, it becomes difficult to breathe. People having an asthma episode or "attack," as it is often called, may become breathless and anxious. Signs of an asthma episode can include:

- coughing
- wheezing
- chest tightness
- shortness of breath
- paleness and perspiration.

These episodes can be life threatening if left untreated. Asthma has been documented as a cause of death in school age students, including New Mexico.

Fortunately, asthma is not a contagious or infectious disease. It cannot be "caught." Yet, it is one of the most common chronic diseases of childhood and it is reportedly increasing in incidence and severity. There are many theories as to why this is happening, but there is no one answer. The Centers for Disease Control (CDC) estimates that approximately 22 million Americans have asthma. Of this number, approximately nine million are children. In New Mexico, more than 25,000 school age children are reported to have asthma. This means that in a classroom of 30 children two or more are likely to have asthma.

Asthma is considered to be the leading cause of missed school days due to chronic illness. This can potentially affect school performance, limit physical activity, and lead to poor self-concept. Further, there are increased doctor and hospital visits, additional medical costs, missed workdays for parents, and a general disruption in family routines.

Effective asthma management in the school setting can lead to positive results such as:

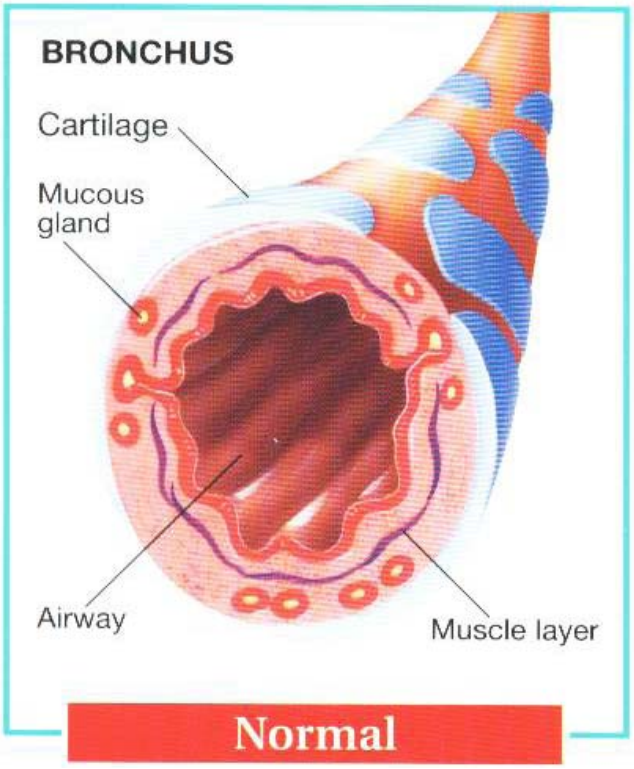
- a supportive learning environment
- reduced absences
- fewer disruptions in the classroom
- appropriate emergency care

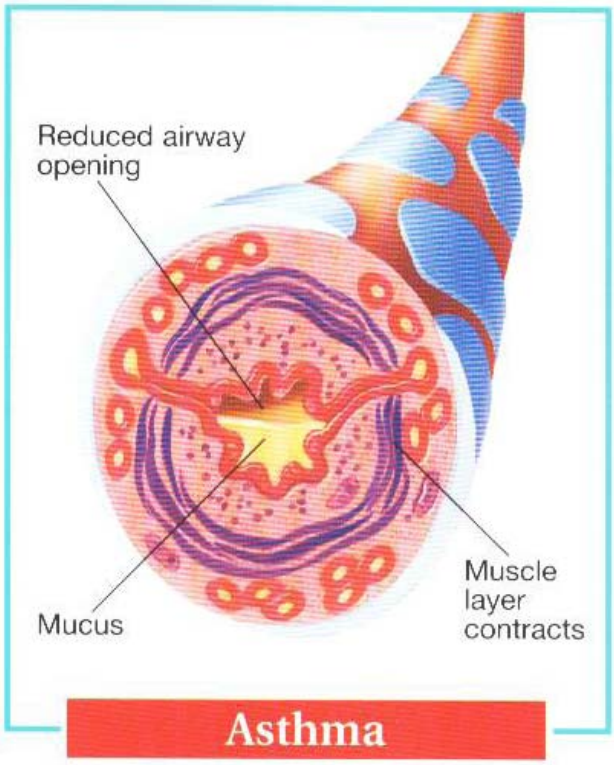
- full student participation in physical activities
- cooperative family participation.

While there is no known cure for asthma, there are ways to control it. People with asthma can lead normal, productive lives with effective asthma management. Management requires a consistent, comprehensive approach and the cooperation of everyone involved. In the school setting this means the involvement of the student with asthma, the family, the medical provider, and the ENTIRE school staff. Providing an asthma friendly school environment is essential for the control and management of asthma. All members of the school community share responsibility in this effort.

Description of an Asthma Episode

While asthma episodes ("attacks") may be caused by a variety of “triggers.” one trigger may be enough to start an episode. When an episode occurs the lining of the airway swells and mucous begins to form. In addition, the smooth muscles of the bronchi (windpipe) constrict (tighten). The end result is that the airways are narrowed making it more difficult for air to move into the chest. Because the airways are narrowed, there may be a whistling sound called wheezing as the person attempts to breathe. He or she may feel short of breath, have tightness in the chest, and become anxious about not being able to breathe. The person may also cough in an attempt to move the mucous out of the airways.





To understand what asthma feels like, try running in place while breathing through a straw or breathing through a straw with your nose pinched.

Signs of an Asthma Episode

Early signs of an asthma episode may include

- coughing
- chest tightness
- throat tightness
- breathing through the mouth

Later signs of an asthma episode may include

- wheezing
- shortness of breath
- rapid breathing
- paleness
- perspiration

Signs requiring immediate medical attention

- tightened neck muscles
- sucked in skin around the chest
- blue or gray lips and/or fingernails
- flared nostrils

Verbal complaints may include

- my chest is tight
- my chest hurts
- I cannot catch my breath
- my mouth is dry
- my neck feels funny
- my chin or throat itches
- I feel nauseated
- my stomach (tummy) hurts
- I feel dizzy (light headed)
- I don't feel well
- I feel tired

What Schools Need to Know About Asthma

Asthma, a lung disease, is the most common chronic illness among children.

Childhood asthma is a leading cause of school absenteeism due to a chronic illness each year. This also results in time off from work for parents.

During as asthma attack, the airways in the lungs become swollen and cause coughing, wheezing, chest tightness, and/or trouble breathing. This could happen when a student with asthma is exposed to things that may start asthma attacks such as chalk, dust, animal dander, mold, cold air, cigarette smoke, strong scents, and/or pollen.

There is no known cure for asthma, but there are ways to control it. If asthma is not controlled properly and not taken seriously, death can occur.

The incidence of childhood asthma has increased dramatically over the past two decades.

Poor and minority children are more likely to have asthma and to have higher emergency room and hospitalization rates for their asthma.

Research has demonstrated the value of asthma education in schools, showing that it helps to improve self-management of asthma, and also leads to decreased rates of absenteeism.

(Adapted from Managing Asthma in Connecticut Schools)

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

IV. THE STUDENT WITH ASTHMA

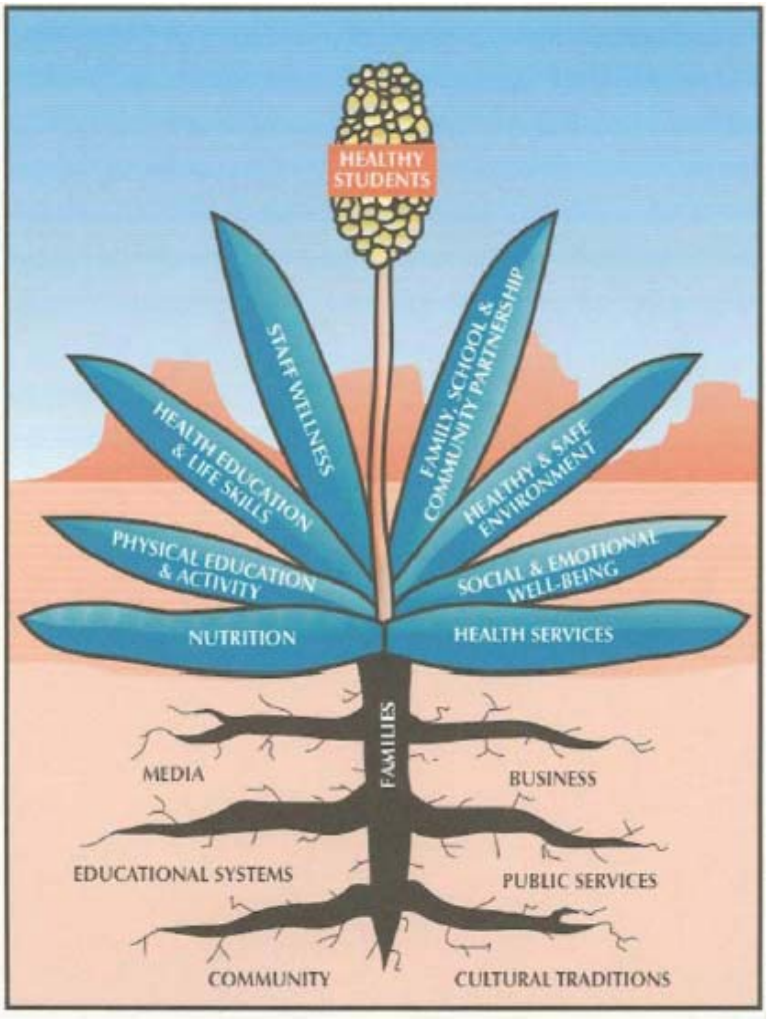


TABLE OF CONTENTS

Student Needs and Responsibilities

Important Points

Students with asthma are first of all students.

A student with asthma is first of all a student. He or she should not be viewed as an "asthmatic," but rather as a student who must cope with asthma along with all the other challenges of learning in the school setting. Students with asthma and allergies should be encouraged to participate fully in all school activities and should be viewed the same as other classmates. A number of well-known athletes such as Jackie Joyner-Kersee, Jerome Bettis, and Chris Freeman provide excellent examples of effective asthma management skills and professional success.

Good asthma management strategies will help ensure that students with asthma are viewed the same as other students.

Coping with asthma requires that the student and staff be knowledgeable about this chronic disease. Specifically, each student must know what "triggers" an asthma episode and, most importantly, be able to recognize symptoms of an onset. The ability to do this will clearly vary with the student's age and ability and in some cases assistance may be required. In general, all students should be encouraged to manage their own asthma and assume responsibility for their own wellbeing.

Students with asthma and their families should keep the school well informed.

At the beginning of each school year, certain steps should be taken to insure success. The student and his/her family should provide the information needed to manage asthma in the school setting. This will include the following:

- his/her asthma triggers (see list of potential triggers)
- symptoms of an onset
- treatment measures employed, including medications/inhalers
- situations where assistance may be needed

Providing this information at the start of the school year will promote good asthma management and help prevent situations that might lead to problems.

Students with asthma need to participate in school activities to the fullest extent possible.

Students with asthma and their school community share a joint responsibility for good asthma management.

While the school has a responsibility to assist the student with asthma by providing a safe, healthy, and helpful environment, the student also has responsibilities. It is important for the student to:

- avoid potential triggers
- report onset of symptoms
- use medications as prescribed
- carry and self-administer medications when capability has been demonstrated
- actively participate in activities including physical education
- refrain from using asthma as an excuse of convenience.

This mutual sharing of responsibility will go a long way to insuring successful asthma management in the school setting.

While there is no known cure for asthma, there are ways to control it.

People with asthma can lead normal, productive lives with effective asthma management. Management requires a consistent, comprehensive approach and the cooperation of everyone involved. In the school setting this means the involvement of the student with asthma, the family, the medical provider, and the ENTIRE school staff. Providing an asthma friendly school environment is essential for the control and management of asthma. All members of the school community share responsibility in this effort.

What Every Staff Member Needs To Know

Every staff member needs to be sensitive to the needs of students with asthma. Helping these students is everyone's responsibility, not just the responsibility of the school nurse. Because an asthma episode can occur potentially anywhere - in the classroom, cafeteria, gymnasium, on the playground or sports field, on a school bus, or during a field trip - every staff member should be prepared.

While every student with asthma has individual "triggers," common ones that everyone should be prepared to recognize include:

- changes in temperature, especially cold or windy weather
- cleaning products and chemicals
- cockroach and rodent droppings
- dust and dust mites
- exercise
- furry and feathered pets and their dander
- mold
- perfumes and sprays
- scented candles and incense
- stress and strong emotions
- smoke
- strong odors.

Staff members must be able to recognize the early signs and symptoms of an asthma episode in order to seek immediate help for the student. Early warning signs to watch for are:

- any difficulty in breathing
- coughing or wheezing, especially after physical activity
- complaints of tightness in the chest
- pale color, anxiety, and restlessness.

Being prepared to assist a student experiencing an asthma episode or "attack" can potentially be life saving. It is important to:

- remain with the student until help arrives and to stay calm
- help the student into a position of comfort for him/her that promotes breathing- usually sitting up rather than lying down
- assist the student in taking any medications or inhalers he or she has with them
- provide reassurance and decrease any stress promoting situation.

Asthma awareness and knowledge is the responsibility of every staff member. It will help ensure an asthma friendly school and a safe, healthy environment for every member of the school community.

Potential Asthma Triggers

Allergic Triggers

- Animal dander from feathers and fur (includes warm-blooded animals like dogs, cats,
  Birds, and small rodents)
- Droppings from cockroaches and rodents and dried remains
- Dust mites
- Foods
- Mold
- Pollen

Environmental Triggers

- Chalk dust
- Cigarette smoke, second hand smoke, and smoke residue carried on clothing
- Cleaning products and chemicals
- Cold air
- Exhaust fumes, especially diesel
- Lime or other substances used to line playing fields
- Markers
- New carpet out gassing
- Paints
- Perfumes and sprays
- Pesticides
- Recently mowed grass
- Roofing fumes
- Scented candles and incense
- Smoke
- Strong odor
- Wind

Physical Triggers

- Colds and the flu
- Respiratory infections
- Strong emotions (excitement, laughter, crying, stress)
- Vigorous exercise
- Gastro esophageal reflux disease (GERD)
- Vocal cord dysfunction

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing

↓

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)

↓

Does student have parent/guardian-approved medication?

YES → Administer medication as directed.

NO ↓

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

↓

- Are the lips, tongue or nail beds turning blue?
- Are the symptoms not improving or getting worse?
- Did breathing difficulty develop rapidly?

NO → Contact responsible school authority & parent/legal guardian.

YES ↓

CALL EMERGENCY MEDICAL SERVICE.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

V. THE ASTHMA FRIENDLY SCHOOL

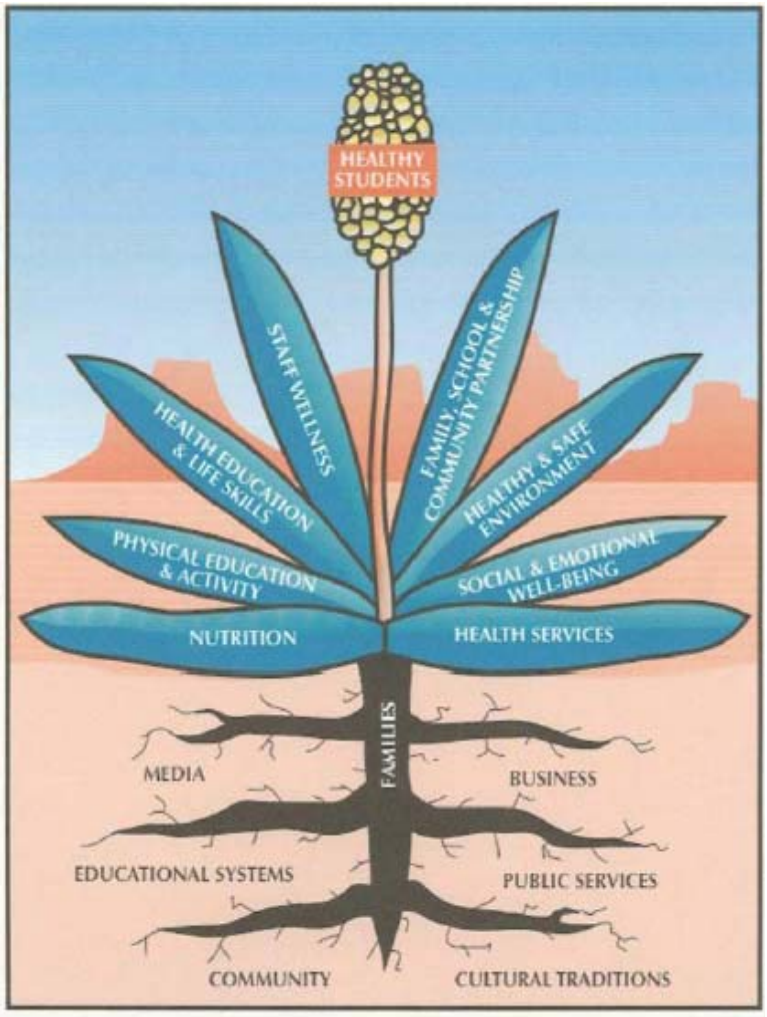


TABLE OF CONTENTS

The Asthma Friendly School

Important Points

The school environment can contain irritants potentially harmful to students with asthma.

An asthma friendly school requires the cooperation and commitment of every member of the school community. Surveying a school and making necessary changes can often be viewed as a challenge. However, the resulting healthy school environment is certainly worth the effort for the well-being of every member of the school community.

Tools are available to evaluate a school environment.

There are a number of recognized guidelines for determining if a school is asthma friendly. The National Heart, Lung, and Blood Institute developed a questionnaire that is recognized as a standard in making such evaluations. Common prerequisites for an asthma friendly school include providing the following:

- a smoke free environment
- good indoor air quality
- school nurse availability – full time
- informed student self-administration of medication
- opportunities for students to participate fully in all school activities
- emergency plans to manage asthma episodes
- staff education and awareness regarding asthma.

Having an asthma-friendly school is both possible and necessary.

Often the extent to which allergens and irritants are present in the school environment is not recognized. Overlooking them is very easy. Common culprits include strong odors from cleaning products, permanent markers and their erasing products, glues, and perfumes or sprays. Animal dander from furry or feathered classroom pets or that brought into the school on student and staff clothing can be irritating. Generalized dusts, plus that from carpets, chalks, mites, and poor vacuuming techniques are common problems. While aware of the problems associated with smoking and second hand smoke, many forget that residue from smoking is easily carried on clothing and brought into the school environment. Mold can be a problem even in the dry environment of New Mexico. Mold and mildew are common allergens.

An asthma-friendly school requires the help and cooperation of every member of the school community.

Outside the classroom products used to line playing fields, insecticides, and car and bus exhaust (especially diesel) can prove troublesome. Weather conditions such as extreme cold, wind, high pollen counts, and poor air quality must be evaluated carefully. Proximity to agricultural or industrial waste also deserves consideration. At times, the list of potential asthma triggers may seem endless; however, awareness is fundamental to providing an asthma friendly school environment, both indoors and outdoors.

School construction, remodeling, and renovation require careful planning and implementation. Consideration must be given to the selection of building materials with limited “out gassing” of irritating fumes and odors. Excellent resources outlining construction

A healthy school environment is essential for successful asthma management.

recommendations are available from the Environmental Protection Agency (EPA) www.epa.gov . and the Asthma Regional council of New England (ARC) http://www.asthmaregionalcouncil.org/ . Recognizing potential environmental problems requires understanding, awareness, and caring. Interestingly, there is even a "green school" movement evolving in the United States. More information is available at www.epa.gov/iaq/greenbuilding/index.html .

An essential component of the asthma friendly school is a knowledgeable, supportive staff. Each member must be committed to promoting good indoor and outdoor air quality. Participating in staff asthma education, being involved in evaluating the school environment, and helping to establish policies and protocols is important. Knowing how to make a difference for the students with asthma will be beneficial for all members of the school community.

It is important to remember that children with asthma need support to manage their asthma and to be fully active. Asthma can be controlled and students with asthma deserve an asthma friendly school environment.

National Heart, Lung and Blood Institute
National Asthma Education and Prevention Program
School Asthma Education Subcommittee

How Asthma-Friendly Is your School?

Children with asthma need proper support at school to keep their asthma under control and be fully active. Use the questions below to find out how well your school serves students with asthma:

1. Is your school **free of tobacco smoke** all of the time, including during school-sponsored events?

2. Does **the school maintain good indoor air quality?** Does it **reduce or eliminate allergens and irritants** that can make asthma worse?
   Allergens and irritants include pets with fur or feathers, mold, dust mites (for example, in carpets and upholstery), cockroaches, and strong odors or fumes from such products as pesticides, paint, perfumes, and cleaning chemicals.

3. Is there a **school nurse** in your school all day, every day? If not, is a nurse regularly available to the school to help write plans and give guidance for students with asthma about medicines, physical education, and field trips?

4. Can children take **medicines** at school as recommended by their doctor and parents? May children carry their own asthma medicines?

5. Does your school have an **emergency plan** for taking care of a child with a severe asthma episode (attack)? Is it made clear what to do? Who to call? When to call?

6. Does someone **teach school staff** about asthma, asthma management plans, and asthma medicines? Does someone **teach all students** about asthma and how to help a classmate who has it?

7. Do students have **good options for fully and safely participating in physical education** class and recess? (For example, do students have access to their medicine before exercise? Can they choose modified or alternative activities when medically necessary?)

If the answer to any question is no, students may be facing obstacles to asthma control. Asthma out of control can hinder a student's attendance, participation, and progress in school. School staff, health professionals, and parents can work together to remove obstacles and to promote students' health and education.

Contact the organizations listed below for information about asthma and helpful ideas for making school policies and practices more asthma-friendly. Federal and State laws are there to help children with asthma.

Asthma can be controlled; expect nothing less.

Walkthrough Inspection Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. GROUND LEVEL

		Yes	No	N/A
1a.	Ensured that offices are dusted and vacuumed regularly	❑	❑	❑
1a.	Ensured that ventilation units operate properly	❑	❑	❑
1b.	Ensured there are no obstructions blocking air intakes	❑	❑	❑
1c.	Checked for nests and droppings near outdoor air intakes	❑	❑	❑
1d.	Determined that dumpsters are located away from doors, windows, and outdoor air intakes	❑	❑	❑
1e.	Checked potential sources of air contaminants near the building (chimneys, stacks, industrial plants, exhaust from nearby buildings)	❑	❑	❑
1f.	Ensured that vehicles avoid idling near outdoor air intakes	❑	❑	❑
1g.	Minimized pesticide application	❑	❑	❑
1h.	Ensured that there is proper drainage away from the building (including roof downspouts)	❑	❑	❑
1i.	Ensured that sprinklers spray away from the building and outdoor air intakes	❑	❑	❑
1j.	Ensured that walk-off mats are used at exterior entrances and that they are cleaned regularly	❑	❑	❑

2. ROOF

While on the roof, consider inspecting the HVAC units (use the Ventilation Checklist*).*

2a.	Ensured that the roof is in good condition	❑	❑	❑
2b.	Checked for evidence of water ponding	❑	❑	❑
2c.	Checked that ventilation units operate properly (air flows in)	❑	❑	❑
2d.	Ensured that exhaust fans operate properly (air flows out)	❑	❑	❑
2e.	Ensured that air intakes remain open, even at minimum setting	❑	❑	❑
2f.	Checked for nests and droppings near outdoor air intakes	❑	❑	❑
2g.	Ensured that air from plumbing stacks and exhaust outlets flows away from outdoor air intakes	❑	❑	❑

3. ATTIC

3a.	Checked for evidence of roof and plumbing leaks	❑	❑	❑
3b.	Checked for birds and animal nests	❑	❑	❑

4. GENERAL CONSIDERATIONS

4a.	Ensured that temperature and humidity are maintained within acceptable ranges	❑	❑	❑
4b.	Ensured that no obstructions exist in supply and exhaust vents	❑	❑	❑

4. GENERAL CONSIDERATIONS (continued)

	Yes	No	N/A
4c. Checked for odors	❑	❑	❑
4d. Checked for signs of mold and mildew growth	❑	❑	❑
4e. Checked for signs of water damage	❑	❑	❑
4f. Checked for evidence of pests and obvious food sources	❑	❑	❑
4g. Noted and reviewed all concerns from school occupants	❑	❑	❑

5. BATHROOMS AND GENERAL PLUMBING

5a. Ensured that bathrooms and restrooms have operating exhaust fans	❑	❑	❑
5b. Ensured proper drain trap maintenance:			
Water is poured down floor drains once per week (approx. 1 quart of water)	❑	❑	❑
Water is poured into sinks at least once per week (about 2 cups of water)	❑	❑	❑
Toilets are flushed at least once per week	❑	❑	❑

6. MAINTENANCE SUPPLIES

6a. Ensured that chemicals are used only with adequate ventilation and when building is unoccupied	❑	❑	❑
6b. Ensured that vents in chemical and trash storage areas are operating properly	❑	❑	❑
6c. Ensured that portable fuel containers are properly closed	❑	❑	❑
6d. Ensured that power equipment, like snow blowers and lawn mowers, have been serviced and maintained according to manufacturers' guidelines	❑	❑	❑

7. COMBUSTION APPLIANCES

7a. Checked for combustion gas and fuel odors	❑	❑	❑
7b. Ensured that combustion appliances have flues or exhaust hoods	❑	❑	❑
7c. Checked for leaks, disconnections, and deterioration	❑	❑	❑
7d. Ensured there is no soot on inside or outside of flue components	❑	❑	❑

8. OTHER

8a. Checked for peeling and flaking paint (if the building was built before 1980, this could be a lead hazard)	❑	❑	❑
8b. Determined date of last radon test	❑	❑	❑

NOTES

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

VI. THE SCHOOL ADMINISTRATION

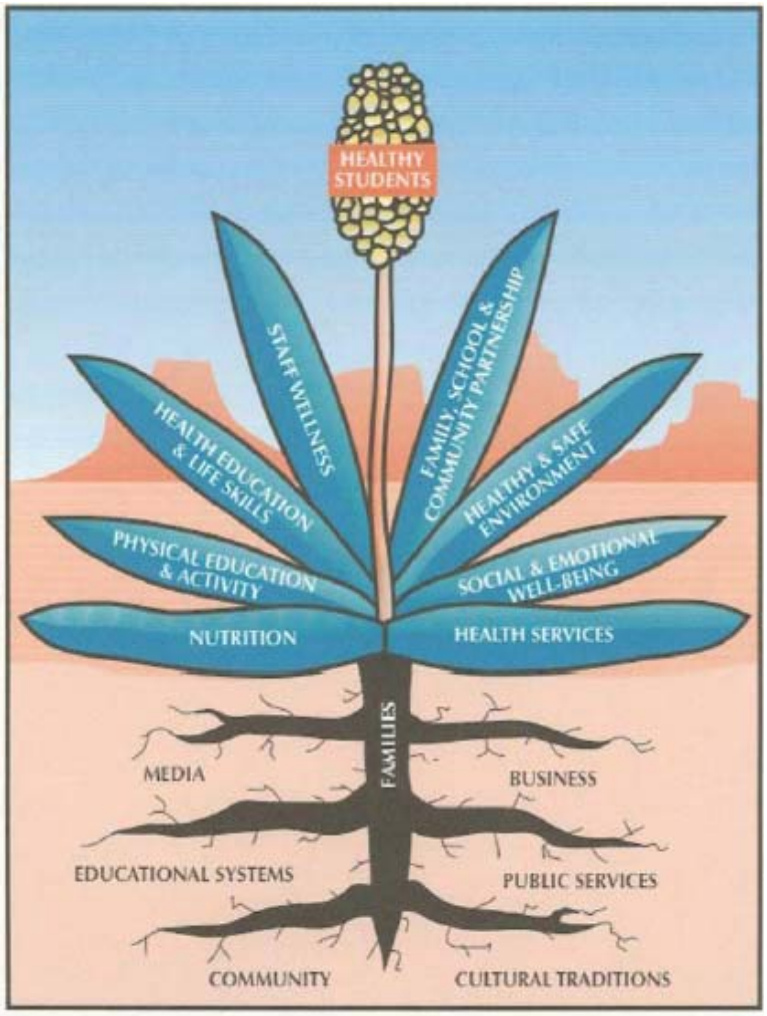


TABLE OF CONTENTS

Important Points

School administrators are vital in establishing an asthma friendly school.

School policies and regulations should support a healthy school environment.

Initiating a team effort will help enlist cooperation.

Asthma awareness and education are essential.

Many resources are available to help in the promotion of an asthma friendly school environment.

Administration Responsibilities

The school administration has a vital role in ensuring a healthy school environment for every member of the school community. Administrators can be instrumental in promoting an awareness of what an asthma-friendly school requires and in gaining the cooperation of staff and students. Over time this effort should improve school attendance rates, help increase school and job performance, and promote positive attitudes throughout the school community.

Key administrative responsibilities in insuring an asthma-friendly school include:

- establishing and/or supporting a school asthma policy
- promoting a healthy work/school environment
- supporting students and staff with asthma
- ensuring the provision of appropriate school health services
- promoting collaboration with parents and community.
- supporting students' rights to carry and self-administer medications when ability has been demonstrated

A beginning step is to evaluate school policies, regulations, procedures, and other protocols that influence the management of asthma in the school setting, both indoors and outdoors. Recent provisions in New Mexico's Administrative Codes (6.12.2.9) regarding students carrying and self-administering asthma medications may require some individual school policy revisions. Having clearly written policies supported by the administration and the local school board is a major step toward making an asthma-friendly school a reality.

An indoor air quality assessment IAQ team should be developed to assess the school environment and determine an action plan. The Environmental Protection Agency's Tools for Schools Action Kit http://www.epa.gov/iaq/schools/pubs.html is an excellent resource to evaluate the needs and issues that may arise during a school assessment. This kit provides helpful checklists for staff members, including an administrative checklist. (Examples are included throughout this manual.) Hopefully, a team approach will enlist greater cooperation and support for this effort.

Issues that this team will need to consider in order to develop policies include, but are not limited to:

- integrated pest management system both indoor and outdoor
- classroom pets, visiting pets, and helper dogs
- fragrances, sprays, perfumes, and scented candles
- use of markers and certain art supplies
- solvents used in auto and other shop classes
- cleaning products
- smoking regulations for both students and staff

- auto and school bus emissions
- mowing and fertilizing schedules
- temperature and allergen considerations for outdoor activity
- alternative or adaptive participation for required physical activity.

The team's assessment may identify the need for some level of additional professional assistance. Addressing these issues and taking steps to correct any deficiencies will demonstrate the intention and willingness to support students and staff with asthma or other respiratory conditions.

Asthma Education Promotion

Important Points

Administrators should encourage and support the involvement of parents whose students have asthma.

ALA has Asthma 101, a program ideally suited to educate school staff members.

Appropriate school health services are an integral part of an asthma-friendly school environment.

Administrators should encourage and support the involvement of parents whose students have asthma.

Promoting a healthy school environment requires leadership, commitment, and enlisting the cooperation of the entire school community.

The school administrator is in a key position to encourage and promote both programs and curriculum that educate students and staff regarding asthma and the needs of individuals with this chronic disease. The American Lung Association's (ALA) Open Airways Program www.lungusa.org is an excellent educational tool to help students learn to manage asthma and decrease the likelihood of an asthma episode. Staff in-service programs to provide education about asthma, its triggers, and its control and management are essential. Again, ALA has Asthma 101, a program ideally suited to educate school staff members. Asthma information should be reviewed and updated annually, perhaps during mandated in-service days. A well-informed and aware staff is better able to respond to an asthma emergency and to carry out asthma action plans.

Appropriate school health services are an integral part of an asthma-friendly school environment and the school administrator has a responsibility to see that they are provided. Having a school nurse is invaluable. The nurse is able to care for students with asthma, administer needed medications, instruct students in medication self-administration, write asthma care plans, and develop asthma emergency action plans. Assistance with staff and student health education can be provided. Additionally, the nurse can promote collaboration with parents, medical providers, and the school community as a whole.

Administrators should encourage and support the involvement of parents whose students have asthma. Working together with them and with local health care providers will help insure that student needs are appropriately met. Parent Teacher Organizations (PTO's) can provide opportunities for education and communication that should not be overlooked.

The American Association of School Administrators http://www.aasa.org/ has taken a leading role in addressing asthma management in schools. It provides numerous resources on such topics as asthma management policies, air quality, and liability. Promoting a healthy school environment is a major administrative responsibility. It requires leadership, commitment, and enlisting the cooperation of the entire school community.

***NOTE*:** It is recommended that copies of local district and/or school policies regarding school health issues be compared for compliance with the New Mexico Administrative Codes and State Statutes.

New Mexico Administrative Code (6.12.2 NMAC)

TITLE 6 PRIMARY AND SECONDARY EDUCATION
CHAPTER 12 PUBLIC SCHOOL ADMINISTRATION - HEALTH AND SAFETY
PART 2 HEALTH SERVICES

6.12.2.1 ISSUING AGENCY: Public Education Department
[6.12.2.1 NMAC - Rp, 6.12.2.1 NMAC, 11-15-05]

6.12.2.2 SCOPE: This regulation applies to children attending public, nonpublic, or home schools in New Mexico unless otherwise expressly limited.
[6.12.2.2 NMAC - Rp, 6.12.2.2 NMAC, 11-15-05]

6.12.2.3 STATUTORY AUTHORITY: This regulation is adopted pursuant to Section 22-2-1 NMSA 1978.
[6.12.2.3 NMAC - Rp, 6.12.2.3 NMAC, 11-15-05]

6.12.2.4 DURATION: Permanent
[6.12.2.4 NMAC - Rp, 6.12.2.4 NMAC, 11-15-05]

6.12.2.5 EFFECTIVE DATE: 11-15-05, unless a later date is cited at the end of a section.
[6.12.2.5 NMAC - Rp, 6.12.2.5 NMAC, 11-15-05]

6.12.2.6 OBJECTIVE: This rule addresses health services for children attending schools in New Mexico.
[6.12.2.6 NMAC - Rp, 6.12.2.6 NMAC, 11-15-05]

6.12.2.7 DEFINITIONS: [Reserved]

6.12.2.8 REQUIREMENTS FOR IMMUNIZATION OF CHILDREN ATTENDING PUBLIC, NONPUBLIC, OR HOME SCHOOLS:

. . .

6.12.2.9 STUDENT'S RIGHT TO SELF ADMINISTER CERTAIN MEDICATIONS

A. The following definitions apply to this section.

(1) "Health care practitioner" means a person authorized under law in New Mexico to prescribe drugs for the treatment of asthma and anaphylaxis associated medical conditions.

(2) "Medication" means a drug as that term is defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321) and includes inhaled bronchodilators, inhaled corticosteroids and auto-injectable epinephrine.

(3) "Self-administration" means a student's discretionary use of his or her prescribed asthma or anaphylaxis medication, pursuant to prescription or written direction from a health care practitioner.

B. Requirements

(1) General rights: Schools (whether public or nonpublic) must grant to any student in grades kindergarten through 12 authorization to carry and self-administer health care practitioner prescribed asthma treatment medications and anaphylaxis emergency treatment medication if the following conditions are met:

(a) a health care practitioner has prescribed the medication for use by the student during school hours and instructed the student in the correct and responsible use of the medication; and

(b) the student has demonstrated the skill level necessary to use the medication and any device that is necessary to administer such medication as prescribed by the health care practitioner (or such practitioner's designee) and the school nurse or other school official who is a public education department licensed health care provider; and

(c) the school nurse (if available) with the health care practitioner formulates a written treatment plan for managing asthma or anaphylaxis episodes of the student and for medication use by the student during school hours; and

(d) the school has, in writing, informed the parent or guardian of the student that the school, including its employees and agents, is to incur no liability as a result of any injury arising from the self-administration of medication pursuant to this section; and

(e) the student's parent or guardian has completed and submitted to the school:

(i) any written documentation required by the school, including the statement required by Paragraph (1);

(ii) the treatment plan formulated under Subparagraph (c) of this paragraph; and

(iii) a signed statement from the parent or guardian of the student acknowledging that, notwithstanding any provision of state law to the contrary, the school (including its employees and agents) is to incur no liability as a result of any injury arising from such self-administration of medication and the parent or guardian will indemnify and hold harmless the school (including its employees and agents) against any claim arising out of such self-administration of medication.

(2) Extent of authorization: An authorization granted under Paragraph (1) of Subsection B must allow the student involved to possess and use his/her medication:

(a) while in school;

(b) while at a school-sponsored activity;

(c) during normal before-school and after-school activities such as before-school or after school care on school-operated property; and,

(d) in transit to or from school or school-sponsored activities.

(3) Duration of authorization. An authorization granted under Subsection B:

(a) must be effective only for the school year for which it is granted; and

(b) must be renewed by the parent or guardian each subsequent school year in accordance with this section.

(4) The school must ensure that back-up medication, if provided by a student's parent or guardian, be kept at the student's school at a location easily accessible to the student in event of an asthma or anaphylaxis emergency. Each school must develop policies and procedures to address the safekeeping of back-up medication in a manner that ensures the medication is easily accessible by the student. Authorized school personnel who in good faith provide a person with backup medication as provided in this paragraph are not liable for civil damages as a result of providing the medication.

(5) Maintenance of information: Information described in Subparagraphs (c) and (e) of Paragraph (1) shall be kept on file at the student's school in a location easily accessible in the event of an asthma or anaphylasix emergency. Each school must develop policies and procedures to address the safekeeping and confidentiality of the required information.

[6.12.2.9 NMAC - N, 11-15-05]

New Mexico Administrative Code (6.30.2.10 NMAC)

TITLE 6 PRIMARY AND SECONDARY EDUCATION
CHAPTER 30 EDUCATION STANDARDS – GENERAL REQUIREMENTS
PART 2 STANDARDS OF EXCELLENCE
SUBPART 10E PROCEDURAL REQUIREMENTS

6.30.2.10 PROCEDURAL REQUIREMENTS

A – D. …

E. School facilities and grounds. Each school district must provide school facilities and grounds, which are:

(1) safe, healthy, orderly, clean, and in good repair;

(2) in compliance with the Americans with Disabilities Act, Part III and State Fire Marshal regulations, Sections 59A-52-1 through 59A-52-25 NMSA 1978;

(3) safe for conducting experiments and school projects in all school laboratories and shops as established in school safety procedures. These procedures must include, but are not limited to, appropriate eyewear, clothing, and body washes. Appropriate procedures for the storing, handling, and removal of toxic or dangerous substances must be established and implemented. All school programs must comply with standard safety practices and all applicable state and federal regulations.

(4) Use of pesticides will be governed by the following standards:

(a) Definitions as used in this section:

(i) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest.

(ii) "Pest" means any living organism injurious to other living organisms, except man, viruses, bacteria or other microorganisms in or on other living organisms other than plants, which is declared to be a pest pursuant to the Pesticide Control Act, Sections 76-4-1 through 76-4-39 NMSA 1978.

(b) Districts will develop procedures for the implementation of pest management with consideration for reducing the possible impact of pesticide use on human health and the environment, including people with special sensitivities to pesticides. Procedures will include, but are not limited to the following:

(i) No pesticide may be applied to public school property and no pest control device as defined in the New Mexico Pesticide Control Act may be used on public school property except those pesticides and devices currently registered for legal use in the state by the New Mexico department of agriculture.

(ii) No pesticide may be applied to public school property except by those persons certified in the applicable category and currently licensed by the New Mexico department of agriculture or by employees under their direct supervision.

(iii) Pesticides will only be applied in or on the outside of school buildings when a pest is present and will not be applied on a regular or "calendar" basis unless it is to treat an infestation and is a part of a pest management system being implemented to address a particular target pest. A pest is considered to be present when it is observed directly or can reasonably be expected to be present based on finding evidence such as droppings, body parts, or damage that is typically done by the pest. This section of the regulation does not apply to pre-construction termite treatments or the use of outdoor herbicides.

(iv) Pesticides that are applied in a liquid, aerosolized, or gaseous form through spraying, aerosol cans, bombs, fumigation, or injections into the ground, foundation, or plants will not be applied on public school property when students, staff, or visitors are present or may reasonably be expected to be present within 6 hours of the application. In emergency cases where a pest infestation threatens the health and/or safety of the occupants of public school property, and which requires the immediate application of a pesticide to remediate, students, staff, and other school occupants will be removed from the treatment area prior to the application. Small amounts of gel or liquid pesticides applied to cracks and crevices or baits used to treat pest infestation are exempt from this section.

(v) At the beginning of each year, and when new students register, schools will develop a list of parents and guardians who wish to be notified prior to pesticide application during the school year. These parents/guardians will be notified in writing prior to pesticide application. General notification of anticipated pesticide applications will occur by posting or dissemination of notices or oral communication or other means of communication. In emergency cases where a pest infestation threatens the health and/or safety of the occupants of public school property, no pre-notification is required. Immediately following the application of a pesticide in emergency cases, signs will be posted indicating an application was made.

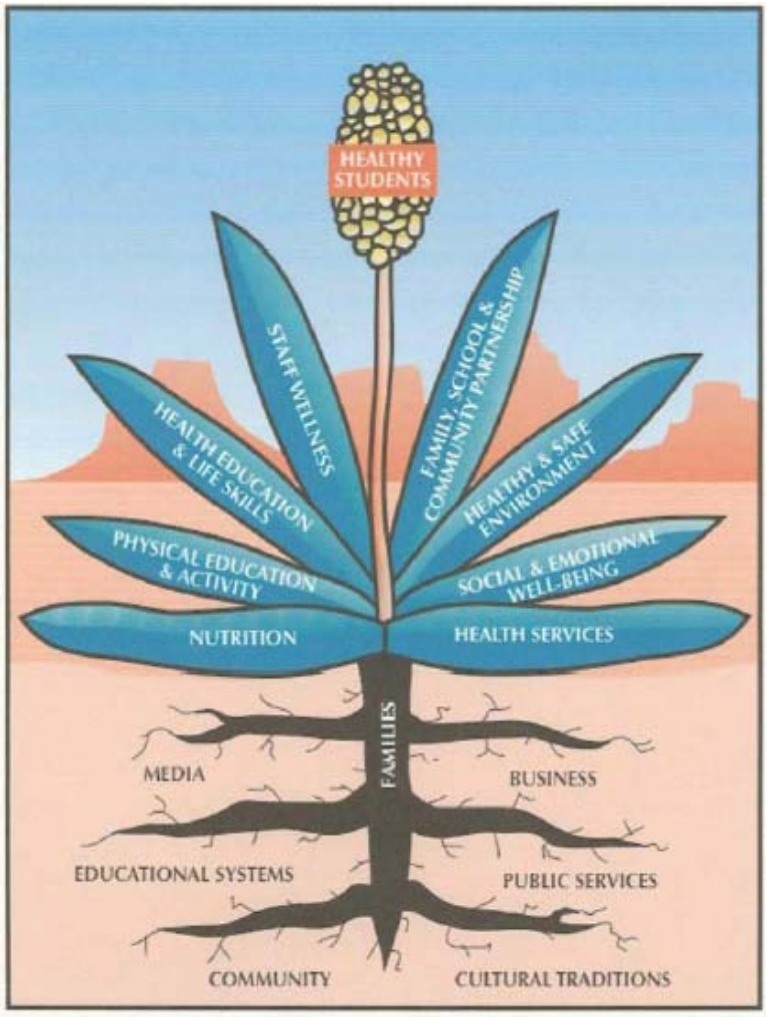
(vi) Written records of pesticide applications will be kept for three (3) years at each school site and be available upon request to parents, guardians, students, teachers, and staff.

(vii) The PED may coordinate technical assistance for implementation of paragraph (4) of subsection E of 6.30.2.10. NMAC.

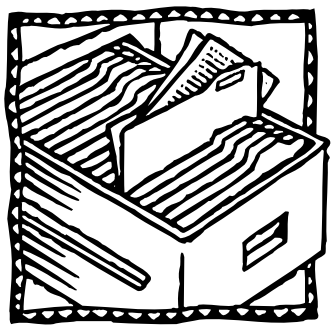
(viii) If any part of paragraph (4) of subsection E of 6.30.2.10. NMAC is found to be in conflict with the provisions of the Pesticide Control Act, the remainder of the regulation will remain in full force and effect.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

VII. THE SCHOOL NURSE



Administrative Staff Checklist



Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. GENERAL CLEANLINESS

		Yes	No	N/A
1a.	Ensured that offices are dusted and vacuumed regularly	❑	❑	❑
1b.	Ensured that trash is removed daily	❑	❑	❑
1c.	Ensured that no food is stored in the office overnight	❑	❑	❑
1d.	Ensured that the room is free of pests and vermin	❑	❑	❑
1e.	Used unscented, school-approved cleaners and air fresheners, if any, in rooms	❑	❑	❑

2. EXCESS MOISTURE IN OFFICES

2a.	Ensured that condensate is wiped from windows, windowsills, and window frames	❑	❑	❑
2b.	Ensured that cold water pipes are free of condensate	❑	❑	❑
2c.	Checked that indoor surfaces of exterior walls are free of condensate	❑	❑	❑
2d.	Checked that areas around and under sinks are free of leaks	❑	❑	❑
2e.	Ensured that lavatories are free of leaks	❑	❑	❑
2f.	Checked ceiling tiles and walls for leaks (discoloration may indicate periodic leaks)	❑	❑	❑
2g.	Ensured that spills are cleaned promptly	❑	❑	❑

3. THERMAL COMFORT

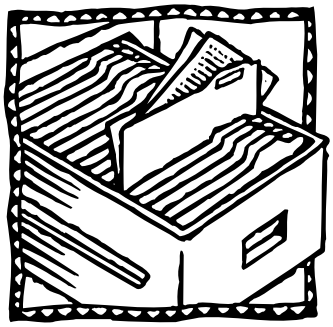
3a.	Ensured moderate temperature (should generally be 72°F–76°F)	❑	❑	❑
3b.	Ensure that there are no signs of draftiness	❑	❑	❑
3c.	Maintained humidity at acceptable levels (between 30 and 60 percent)	❑	❑	❑

4. VENTILATION

4a.	Located unit ventilator	❑	❑	❑
4b.	Located air supply and return vents	❑	❑	❑
4c.	Ensured that air is flowing from supply vent	❑	❑	❑
4d.	Ensured that the air supply pathway is not obstructed	❑	❑	❑
4e.	Ensured that there are no vehicle exhaust, kitchen/food, and chemical odors	❑	❑	❑
4f.	Ensured that there are no signs of mold or mildew (refer to **Appendix H** of the ***IAQ Reference Guide***)	❑	❑	❑
4g.	Determined operability of windows	❑	❑	❑

5. LOCAL EXHAUST FANS

	Yes	No	N/A
5a. Located major pollutant-generating activities, if any	❑	❑	❑
5b. Located exhaust fan(s), if any	❑	❑	❑
5c. Determined that fans operate	❑	❑	❑
5d. Ensured that adjacent rooms are free of odor	❑	❑	❑



6. PRINTING/DUPLICATING EQUIPMENT

6a. Checked for odors from equipment	❑	❑	❑
6b. Ensured that equipment is maintained regularly (date of most recent servicing is usually documented on the machine)	❑	❑	❑
6c. Checked that equipment functions properly	❑	❑	❑
6d. Ensured that duplicating equipment, printers, and copiers are located in a well-ventilated area, preferably in a separate room with an exhaust fan vented to the outside	❑	❑	❑

NOTES

Resources for New Mexico School Administrators

A Worm in the Teacher's Apple: Protecting America's School Children from Pests and Pesticides by Marc L. Lame (2005). Bloomington, IN

Allergy and Asthma Network – Mothers of Asthmatics
www.breatherville.com/breatheatschool
Includes posters and state laws

American Lung Association
www.lungusa.org

American Society of Heating, Refrigeration, and Air-Conditioning Engineers, Inc
www.ashrae.org

An Asthma Plan for New Mexico
Breathing Free from the New Mexico Asthma Coalition (July 2003)
http://www.health.state.nm.us/eheb/rep/Asthma/Breathing%20Free%20in%20New%20Mexico.pdf

Asthma Regional Council of New England
Reducing Asthma Triggers in Schools: Recommendations for Effective Policies, Regulations, and Legislation
www.asthmaregionalcouncil.org

Centers for Disease Control and Prevention - National Center for Environmental Health (available in Spanish)
http://www.cdc.gov/health/asthma.htm
http://www.cdc.gov/healthyyouth/asthma/pdf/pubs-links.pdf
Contains resources for addressing asthma in schools

National Association of Boards of Education
A School Health Policy Guide - Part III: Policies on Asthma, School Health Services, and Healthy Environments
www.nasbe.org

National Environmental Education and Training Foundation
http://www.neefusa.org/

National Heart, Lung, and Blood Institute - National Asthma Education and Prevention Program
www.nhlbi.nih.gov

National Institute of Environmental Health
www.niehs.nih.gov

National School Boards Association
www.nsba.org

New Mexico School Health Manual
Section II – New Mexico Statutes, Administrative Codes, Policies and Regulations Relating to School Health
www.nmschoolhealthmanual.org.

School Asthma Allergy Information Resource
Includes information on respiratory guidelines and programs
www.schoolasthmaallergy.com

U.S. Environmental Protection Agency
Indoor Air Quality Information Clearinghouse
www.epa.gov/iaq
Resources to assess the school environment
http://cfpub.epa.gov/schools/index.cfm
Down loadable software (SEAT)
http://www.epa.gov/schools/healthyseat/index.html
Integrated pest management information
www.epa.gov/pesticides/ipm/#bkmrk4

See General Resources for additional information and resources available in Spanish.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

VII. THE SCHOOL NURSE

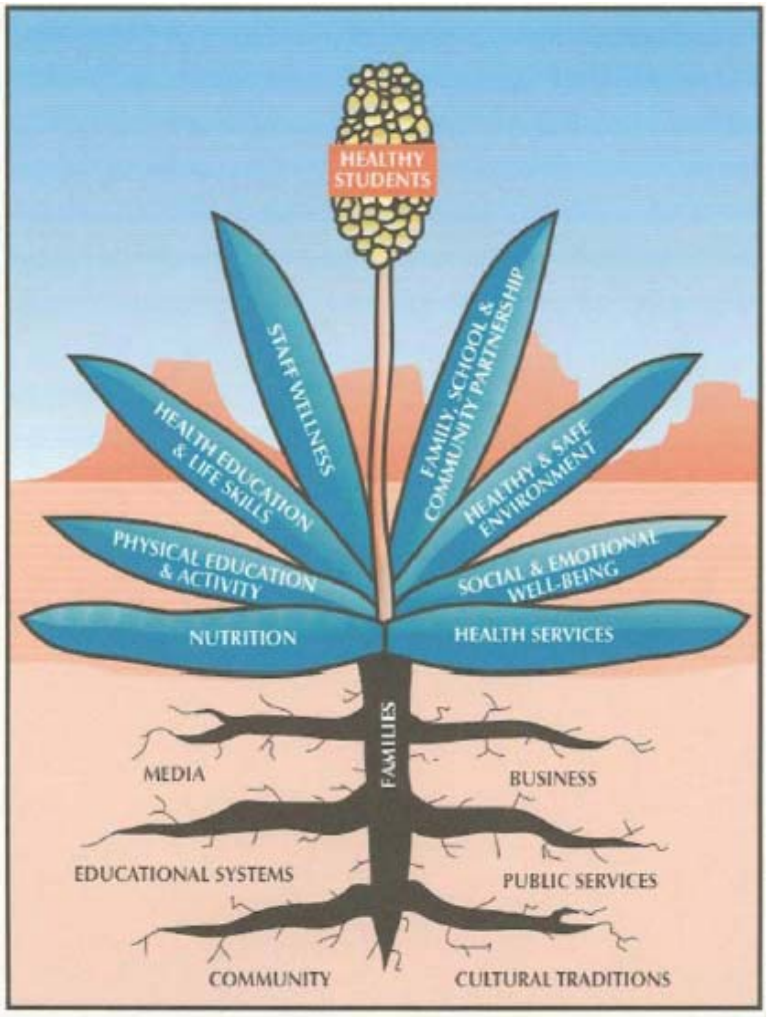


TABLE OF CONTENTS

Asthma Guidelines for School Nurses-1

Important Points

The school nurse has an important role in promoting student success, especially when students have asthma and allergies.

The school nurse has an essential role in promoting the health and well being of every child. This is especially true when a student has a chronic illness such as asthma. The nurse is often the only staff member with the expertise to interpret the varied health care needs of students with asthma and allergies. Consequently, the roles and responsibilities of the school nurse are many and varied.

Students with asthma and allergies should be identified at the start of the school year.

Students with asthma will require different levels of assistance in managing their health care depending upon their ages and their abilities. The New Mexico School Health Manual www.nmschoolhealthmanual.org and the National School Nurses Association www.nasn.org have a variety of resources for school nurses. Helping students to successfully manage their care will help promote independence and self-esteem.

The school nurse should alert all staff members regarding the needs of students with asthma.

At the beginning of each school year, the school nurse needs to identify students with asthma and determine their individual needs. Communicating with families and health care providers is necessary to ensure coordinated health care. Gathering this information then provides the basis for:

- planning for required health care services to be delivered at school
- writing health care and asthma actions plans as well as 504 plans when needed
- asthma emergency plans
- notifying staff members of students with asthma and allergies
- monitoring student progress throughout the school year
- establishing school emergency response plans when an asthma emergency occurs.

Asthma action plans and emergency plans should be developed.

All this should be done carefully and within school district confidentiality guidelines.

The school nurse has a responsibility to educate the school community about asthma and its potential impact.

When working with families to gather necessary student information, the nurse should be alert to any asthma education needs a family might have. This can be an opportunity to answer questions about asthma management both at home and at school. The difference between controller medications (anti-inflammatory) and rescue medications (bronchodilator) and when to use which medication may need to be explained. Signs that asthma is not well controlled can be identified and discussed. Helpful hints to determine if a student is able to attend school can be given. These conferences provide an ideal opportunity for education and review.

While basic health care services have a priority, the school nurse should also be prepared to provide staff training to increase awareness regarding the needs of students with asthma. All staff members need to be able to recognize the signs of breathing difficulties and know appropriate interventions for an asthma episode.

Staff members can be helpful in identifying undiagnosed asthma

symptoms through their classroom observations. Additionally, a management plan needs to be in place in the event that the school nurse is not in the school building. A well-prepared “back-up” should be ready to step in until the nurse or other emergency help arrives.

Physical education (PE) staff members, coaches, and trainers will need more specific information in order to insure that students with asthma participate to the fullest extent possible. Assignment of a “PE buddy” may prove helpful in alerting a busy, involved PE teacher to an impending breathing concern. Monitoring of asthma management during physical activity is an on-going responsibility of both the school nurse and the PE staff members.

The school nurse's teaching responsibilities with respect to asthma education are wide ranging. They need to include providing programs such as the American Lung Association's “Open Airways” www.lungusa.org for young students who are learning to manage their asthma. Ideally, classroom health education opportunities should be utilized to provide a better understanding of asthma among all students, especially those whose classroom peers are coping with this chronic illness. Any misuse or overuse of asthma medications such as inhaler and Epi-Pens must be addressed. Parent Teacher Organizations (PTO) and other school community meetings can be used to promote the knowledge and cooperation needed to have an asthma friendly school environment. A variety of educational resources for use by the school nurse are listed at the end of this section.

The school nurse has an important role in interpreting policies and regulations relating to indoor and outdoor air quality in the school setting. The EPA's “Tools for Schools” is an excellent resource www.epa.gov/iaq when dealing with these concerns. Understanding the special needs of students with asthma enables the nurse to be a "voice of reason" when issues arise. Through collaboration with students, parents, staff members, and medical care providers, the school nurse is ideally prepared to be an advocate for an asthma friendly school environment.

Guidelines for Management of Asthma in the Schools

These guidelines have been designed to direct the school nurse who cares for students with asthma within a coordinated school health approach.

Signs of well-controlled asthma are:

- Able to do all normal activities including attending school, exercising, and playing.
- No coughing, wheezing, or shortness of breath during the day, night or after exercise.
- The use of quick relief medications to control asthma symptoms less than two (2) times a week.
- No ER, Urgent Care, or un-scheduled medial appointments for asthma symptoms.

The school nurse can help students and families achieve these outcomes by continuing prescribed asthma treatments during the school day, assessing how well the student's asthma is controlled, and by assisting families to access health care. To achieve this, the school nurse may intervene by:

☐ Identifying students with asthma by reviewing the emergency cards, obtaining a list of students with asthma from the current information system, from referrals to the health room, and from communication with parents.
☐ Enter the appropriate ICD-9 code in the student information tracking system.
☐ Providing appropriate staff with a confidential list of student's in their classes who have asthma. Advise staff member(s) to keep the current confidential list in their sub folder, and that an Asthma Action Plan (AAP) or IHP by contacting their HMO/Insurance for provider information.
☐ Contacting the parent/guardian to fill out the AP.
☐ Faxing the AAP to the medical provider for completion after parent/guardian section is completed.
- Refer students without insurance to Medicaid, Children's Medicaid Services, or First Choice, as appropriate.
- Assist students' without a PCP by contacting their HMO/Insurance for provider information.

☐ Reviewing AAP per Medication Guidelines and initiating appropriate medication logs.
☐ Distributing and documenting AAPs or IHPs to appropriate staff.
☐ Initiating assessment of peak flow ranges, if not provided, and send to PCP.
☐ Initiating a pre-medication schedule, as needed for Physical Education.
☐ Developing and distributing and expanded IHP for students with other asthma restrictions or needs.
☐ Planning and implementing evidenced based asthma education for students' and staff (including but not limited to bus drivers, coaches, cafeteria staff and custodians).
☐ Initiating Medicaid billing, as appropriate.
☐ Collaborating with school and community groups to provide asthma friendly school environments.
☐ Remaining up to date in current protocols for asthma management..
☐ Advocating for students with asthma:
- who visit the school health office frequently because of asthma symptoms,
- who have attendance issues due to asthma symptoms
- who are not complying with asthma medication or treatment plan,
- who are not participating in physical education or other activities due to asthma symptoms, and
- who have other health concerns (i.e. Allergies, obesity, GERD) that interfere with well controlled asthma

For more information on better controlling asthma, please visit:
http://www.nhlbi.nih.gov/guidelines/asthma/
http://www.nhlbi.nih.gov/health/public/lung/index.htm
http://www.noattacks.org/triggers.html

Adapted from the APS Nursing Services Amended 2/2008

School Management of an Asthma Episode

Clinical Signs

- Wheezing or "whistling in chest
- Cough
- Tacypnea (fast respiratory rate)
- Use of accessory muscles- intercostals
- Hyperexpansion of chest
- Hunched shoulders (use of suprasternal or supraclavicular accessory muscles)
- Prolonged forced expiration
- Struggling or gasping
- Inability to speak in full sentences- in phrases or single words only
- Decreased alertness- drowsy or confused
- Agitation
- Decreased peak flow
- Tachycardia (rapid heart rate)
- Prefers sitting to lying down
- Cannot lie down
- Lips or fingernails grey or blue
- Perspiring

Other Clinical Signs

- Anxiety
- Fear
- " hot potato" voice
- Nasal flaring
- Fatigue
- Depressed sternal notch
- Decreased breath sounds
- Grunting
- Rhonchi
- Vomiting
- Severe restlessness

Subjective Signs: A student says:

- " I don't feel well "
- " I feel terrible "
- " It's getting harder and harder to breathe "
- They can't do their usual activities
- They had to stop activity and could not restart
- " I need my inhaler "
- " My inhaler isn't working/ it didn't work "
- " I'm having an asthma attack " (even if few symptoms are present)
- " My asthma attacks are only coughing (or other symptom)...."
- Complains of chest pain

Initial Management- If severe- initiate emergency treatment first

1. Assess severity quickly- Call EMS if indicated
2. Consult student's asthma action plan if available

- Reassure student while preparing treatment to keep student calm
- Do peak flow prior to treatment if stable
- Initiate treatment immediately
- Assess other symptoms and signs during treatment
- Reassess immediately after treatment and 10-15 mins after treatment
- Check peak flow id available
- If no change, OR becomes worse despite treatment, call EMS, contact parents

Call EMS

- Cannot lie down
- Can speak only in single words
- Mental status changes: agitated or drowsy or confused
- Loud wheezing throughout inhalation and exhalation
- Increased respiratory rate above 30/minute
- Increased heart rate above 110/minute
- No breath sounds
- Lips or fingernail grey or blue
- Peak flow less than 40% of expected or personal best
- Use of accessory muscles-supra-sternal
- Paradoxical retractions- thoraco- abdominal
- No change after treatment
- Becomes worse despite treatment
- Persistent vomiting or persitent coughing
- Severe retraction and/or nasal flaring

ASTHMA MANAGEMENT
NAME_____ **DATE** _____
Initial Assessment DOB_____**ID#**_____

For use by the clinician to guide the assessment of a child with symptoms suggestive of asthma

HISTORY:

1. Symptoms

___ Daytime cough ___Daytime wheezing ___SOB ___Chest tightness ___Sputum production
___ Nighttime cough ___Nighttime wheezing ___Interrupted sleep due to symptoms

2. Patterns of Symptoms

___Perennial, seasonal, or both_____
___Continual, episodic, or both _____
___Onset, duration, frequency (# of days or nights per week or month)_____
___Diurnal variations, esp. nocturnal & on awakening in early morning _____

3. Precipitating and/or aggravating factors

___Viral respiratory infections ___Environmental allergens (indoors/outdoors)
___Exercise ___Irritants (tobacco smoke, strong odors, chemicals)
___Changes in weather, exposure to cold air ___Animal dander or feathers
___Foods, food additives, food preservatives ___Emotional expression (fear/anger/crying/laughing)
___Drugs (aspirin, NSAIDs, beta-blockers including eye drops, others)
___Other_____

4. Development of disease and management/treatment

Age of onset and diagnosis_____
Use of peak flow meter (frequency, current readings)_____
Present medications_____
_____
Need for oral corticosteroids and frequency of use_____
Episodes of unscheduled care:
Hospitalization_____
Emergency Room_____
Urgent Care Clinic_____
Life-threatening exacerbations:
Intubation_____ICU admission_____
Typical exacerbation: Frequency_____
Usual prodromal signs/symptoms_____
Usual patterns and management (what works?)_____
_____
Number of days missed from school (parents from work) due to asthma symptoms_____
Limitations of activity_____
Effect on growth, development, school_____

5. Social history (of the student/family)

Home environment_____
Members of household_____
_____
Family members with health problems_____
_____
Smoking in the home_____
Substance abuse_____
Social support/network_____
Education level (parents)_____Employment_____
Health insurance coverage_____
Economic impact of asthma on the family_____
Pt/Family perception of asthma_____

Signature (staff)_____**Date**_____
Referral: _____

Stepwise Approach for Managing Asthma in Adults and Children Older Than 5 Years of Age: Treatment

Classify Severity: Adequate Control	**Clinical Features Before Treatment or**		**Medications** Required To Maintain Long-Term Control
	Symptoms/Day Symptoms/Night	PEF OR FEV 1 PEF Variability	Daily Medications
Step 4 **Severe Persistent**	Continual Frequent	= 60 % > 30 %	• **Preferred treatment:** - **High-dose inhaled corticosteroids** AND - **Long-acting inhaled beta2-agonists** AND, if needed, Corticosteroid tablets or syrup long term (2 mg/kg/day, generally do not exceed 60 mg per day). (Make repeat attempts to reduce systemic corticosteroids and maintain control with high-dose inhaled corticosteroids.)
Step 3 **Moderate Persistent**	Daily > 1 night/week	> 60 % - 80% > 30 %	• **Preferred treatment:** - Low-to-medium dose inhaled corticosteroids and long-acting inhaled beta2-agonists • Alternative treatment (listed alphabetically): - Increase inhaled corticosteroids within medium-dose range OR - Low-to-medium dose inhaled corticosteroids and either leukotriene modifier or theophylline - If needed (particularly in patients with recurring severe exacerbations): • Preferred treatment: - Increase inhaled corticosteroids within medium-dose range and add long-acting inhaled beta 2-agonists • Alternative treatment: - Increase inhaled corticosteroids within medium-dose range and add with a leukotriene modifier or theophylline.
Step 2 **Mild Persistent**	> 2/week but < 1x/day > 2 nights/ month	= 80 % 20 – 30%	• **Preferred treatment:** **- Low-dose inhaled corticosteroids.** • Alternative treatment (listed alphabetically): cromolyin, leukotriene modifier, nedocromil, OR sustained release theophylline to serum concentration of 5-15 mcg/mL.
Step 1 **Mild Intermittent**	= 2days/week > 2 nights/ month	= 80 % <20 %	• **No daily medication needed** Severe exacerbations may occur, separated by long periods of normal lung function and no symptoms. A course of systemic corticosteroids is recommended.

Stepwise Approach for Managing Asthma in Adults and Children Older Than 5 Years of Age:

Quick Relief	? Short-acting bronchodilator: 2-4 puffs **short-acting inhaled beta 2-agonists** as needed for symptoms.
All Patients	? Intensity of treatment will depend on severity of exacerbation; up to 3 treatments at 20-minute intervals or a single nebulizer treatment as needed. Course of systemic corticosteroids may be needed.

? Use of short-acting beta 2 -agonists >2 times a week in intermittent asthma (daily, or increasing use in persistent asthma) may indicate the need to initiate (increase) long-term? Use of short-acting control therapy

? Step down
Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.

? Step up
If control is not maintained, consider step up. First, review patient medication technique, adherence, and environmental control.

Note

- The stepwise approach is meant to assist, not replace, the clinical decision making required to meet individual patient needs.
- Classify severity: assign patient to most severe step in which any feature occurs (PEF is % of personal best; FEV 1 is % predicted).
- Gain control as quickly as possible (consider a short course of systemic corticosteroids); then step down to the least medication necessary to maintain control.
- Provide education on self-management and controlling environmental factors that make asthma worse (e.g., allergens and irritants).
- Refer to an asthma specialist if there are difficulties controlling asthma or if step 4 care is required. Referral may be considered if step 3 care is required

Goals of Therapy: Asthma Control

- Minimal or no chronic symptoms day or night
- Minimal or no exacerbations
- No limitations on activities; no school/work missed
- Maintain (near) normal pulmonary function
- Minimal use of short-acting inhaled beta 2 -agonist (< 1x per day, < 1 canister/month)
- Minimal or no adverse effects from medications

Source: NAEPP Expert Panel Report Guidelines for the Diagnosis and Management of Asthma–Update on Selected Topics 2004* www.nhlbinih.gov
http://www.nhlbi.nih.gov/guidelines/asthma/execsumm.pdf (No change in annual review, 2007)

ASTHMA ACTION PLAN

Fax Number: _____

Student Name _____ Date of Birth _____ School _____

Student ID Number _____ Grade _____ Medication Allergies_____

Activities student participated in at school _____

Asthma symptoms are triggered by:

☐Exercise ☐ Illness ☐Pollen ☐Smoke ☐Dust ☐Air Pollution ☐Animals ☐Cold Air ☐Molds ☐Foods (list)

Please list any other triggers:

_____

Usual Asthma Symptoms: ☐ Cough ☐Shortness of Breath ☐Chest Tightness ☐Wheeze ☐Other_____

If a student has ANY of the following symptoms: chest tightness, difficulty breathing, wheezing, excessive coughing, and shortness of breath

1. Stop activity & help student to a sitting position
2. stay calm, reassure student
3. assist student with the use of their inhaler
4. Escort student to the health room or call for health room staff for immediate assistance. Never send the student to the health room alone!

INHALER IS KEPT: _____

Call 911 for ANY of these!

- If breathing does not improve after medication is given
- Student is having trouble walking or talking
- Student is struggling to breathe
- Student's chest and/or neck is pulling in while breathing
- Student's lips are blue, and/ore
- Student must hunch over to breathe

HEALTH CARE PROVIDER, Please complete *all* items in box: ICD 9 Code: _ 493.9 or _____

Asthma Severity: ( )Intermittent ( )Mild persistent ( ) Moderate persistent ( ) Severe persistent

Controller Medication given at home:

_____

Name of medication how much how often

_____

Name of medication how much how often

Quick Relief Medication:

Albuterol____ puffs every ____ min. and as needed up to ___ puffs per hour. May repeat every ____hrs

Albuterol 10-15 min before exercise ( ) Routinely ( ) As Needed. Activity limitations: _____

OR, Albuterol or (_____) solution as needed, _____mg by nebulizer every ____to ____hours.

Name of medication how much

GREEN ZONE	YELLOW ZONE	RED ZONE
*Peak Flow _____ 80 to 100% of personal best	*Peak Flow _____ 60 to 80% of personal best	*Peak Flow _____ Less than 50% of personal best
Asthma Symptoms • No Cough, wheeze or shortness of breath • Able to do all normal activities including exercise and play • No symptoms at night • No need for quick relief medications for symptoms	**Asthma Symptoms** • Coughing, wheezing, shortness of breath, or chest tightness • Using quick relief medication more than usual • Can do some but not all of usual activities • Asthma symptoms at night	**Asthma Symptoms** • Medication unavailable or not working • Getting worse not better • Breathing hard and fast • Chest/neck pulling in • Difficulty walking or talking • Lips or fingernails blue • Hunched over to breathe
Use daily controller medications. Use quick relief inhaler before exercise as ordered. * Peak Flows may be obtained by the school RN in the health room.	**Take Quick Relief Medication Now!** Add or change these medications: Name of medication How much How often Parent/guardian-call medical provider if using quick relief medication more than twice a week or no symptom improvement.	**Take Quick Relief Medication Now!** *Call 911 & continue to give Quick Relief Medication every 20 minutes until EMS arrives!* Contact Parent & Provider- See below

ASTHMA ACTION PLAN- *Continued*

Student can self carry medication? ☐Yes ☐No
Student can self-administer medication? ☐Yes ☐No

Provider signature_____ Date _____
Provider printed name_____

Provider phone_____ Provider fax_____
Provider email _____

Parent/Guardian signature_____ Date_____
Home Phone_____
Cell Phone_____
Work Phone_____

School Nurse Signature_____ Date_____
Phone_____

Albuquerque Public Schools Confidential Health Information
IHP/EAP NANDA 00031 NIC-Periodically Assess the effectiveness of the IHP and AAP

Feb/2008
NOC-Patent Airway

IS THE ASTHMA ACTION PLAN WORKING?
A Tool for School Nurse Assessment

Assessment for: _____ Completed by: _____ Date: _____
(Student) (Nurse or Parent)

This tool assists the school nurse in assessing if students are achieving good control of their asthma. Its use is particularly indicated for students receiving intensive case management services at school.

With good asthma management, students should:

- Be free from asthma symptoms or have only minor symptoms:
  - no coughing or wheezing
  - no difficulty breathing or chest-tightness
  - no wakening at night due to asthma symptoms.
- Be able to go to school every day, unhampered by asthma.
- Be able to participate fully in regular school and daycare activities, including play, sports, and exercise.
- Have no bothersome side effects from medications.
- Have no emergency room or hospital visits.
- Have no missed class time for asthma-related interventions or missed class time is minimized.

Signs that a student's asthma is not under good control:
Indicate by checking the appropriate box whether any of the signs or symptoms listed below have been observed or reported by parents or children within the past 6 months. If any boxes are marked, this suggests difficulty with following the treatment plan or need for a change in treatment or intervention (e.g., different or additional medications, better identification or avoidance of triggers).

- ☐ Asthma symptoms more than twice a week that require quick relief medicine (short-acting beta2-agonists, e.g. albuterol):
- ☐ Symptoms get worse even with quick relief meds
- ☐ Waking up at night because of coughing or wheezing
- ☐ Frequent or irregular heartbeat, headache, upset stomach, irritability, feeling shaky or dizzy
- ☐ Missing school or classroom time because of asthma symptoms
- ☐ Having to stop and rest at PE, recess, or during activities at home because of symptoms
- ☐ Symptoms require unscheduled visit to doctor, emergency room or hospitalization
- ☐ 911 call required

If "yes" to any of the above, use the following questions to more specifically ascertain areas where intervention may be needed.

Probes	**Responsible Person/site**	**Yes**	**No**	**n/a**
Medications: Are appropriate forms completed and on file for permitting medication administration at school?	By school staff	☐	☐	☐
	Self-carry	☐	☐	☐
Has a **daily long-term control** medication(s) (controller*) been prescribed?		☐	☐	☐
Is **controller** medication available to use as ordered?	Home	☐	☐	☐
	School	☐	☐	☐
Is the student taking the **controller** medication(s) as ordered?	Home	☐	☐	☐
	School	☐	☐	☐
Has a **quick-relief** (short-acting-B2-agonist) medication been prescribed?		☐	☐	☐

Is **quick-relief** medication easily accessible?	Home	☐	☐	
	Personal Inhaler(s) at school health office	☐	☐	
	Self-carry	☐	☐	
Is the student using **quick-relief** medication(s) as ordered... Before exercise?	Home	☐	☐	☐
	School	☐	☐	☐
Immediately when symptoms occur?	Home	☐	☐	☐
	School	☐	☐	☐
Medication Administration: Does the student use correct technique when taking medication?		☐	☐	☐
Does the person administering the medication use correct technique?		☐	☐	☐
Monitoring: Can the student identify his/her **early** warning signs and symptoms that indicate onset of an asthma episode and need for quick-relief medicine?		☐	☐	☐
Can the student identify his/her asthma signs and symptoms that indicate the need for help or medical attention?		☐	☐	☐
Can the student correctly use a peak flow meter or asthma diary for tracking symptoms?		☐	☐	☐
Are the students' asthma signs and symptoms monitored using a Peak Flow, verbal report or diary? Daily?	Home	☐	☐	☐
	School	☐	☐	☐
For response to **quick-relief** medication?	Home	☐	☐	☐
	School	☐	☐	☐
During physical activity?	Home	☐	☐	☐
	School	☐	☐	☐
Trigger Awareness: Have triggers been identified?		☐	☐	
Can student name his/her asthma triggers?		☐	☐	☐
Can parent/caregivers list their child's asthma triggers?		☐	☐	
Are teachers, including physical educators, aware of this student's asthma triggers?		☐	☐	☐
Trigger Avoidance: Are triggers removed or adequately avoided or managed?	Home	☐	☐	☐
	School	☐	☐	☐

Long-term-control medications (controllers) include inhaled corticosteroids (ICS), leukotriene receptor antagonists (LTRA), or combination medicine (long-acting B2-agonists and ICS), cromolyn, or theophylline.

School nurses provide appropriate asthma education and health behavior intervention to students, parents, and school personnel when signs and symptoms of uncontrolled asthma and other areas of concern are identified. If there is an indication for a change in asthma medications or treatment regimen, refer the student and family to their primary care provider or asthma care specialist or help families to find such services as soon as possible.

National Asthma Education and Prevention Program

NASN National Association of School Nurses

Common Asthma Medications

Category	Common Examples: Brand Names	Common Examples: Generic Names	Common Side Effects
Quick Relief ("rescue") *Inhaled* short-acting bronchodilators • Short-acting medications that act quickly • Improvement is usually seen within 5 to 10 minutes • Given by metered-dose inhaler, dry-powder inhaler, nebulizer • Commonly used in the school setting for quick relief of symptoms • Maybe used as "pretreatment" drug for exercise-induced asthma	Proventil Maxiar Brethaire Ventolin Xopenex	Albuterol Pirbterol Terbutaline Levabuterol	Unpleasant taste in mouth; dizziness or shakiness; headaches; feeling restless; difficulty sleeping
Long Term Controllers Taken daily on a long-term basis to gain and maintain control of persistent asthma *Inhaled long-acting bronchodilators* • Taken as part of daily treatment to control asthma and should not be taken for quick relief of acute asthma symptoms *Inhaled anti-inflammatory drugs* • Reduce inflammation of the airways, making them more resistant to triggers • Anti-inflammatory drugs may ne non-steroidal or steroidal (contains steroids) • These steroids are not the same as the anabolic steroids and should not be considered dangerous if given appropriately • Most are given via metered-dose inhaler; Cromolyn may be given via nebulizer	Serevent Non-steroidal: Nedocromil Cromolyn Steroidal: Azmacort Aerobid Beclovant/QVAR Flovent Pulmicort Vanceril	Saleterol Tilade Intal Triamcinolone Flunisolide Beclomethasone Flutcasone Budesonide Beclomethasone	Same as above Side effects vary rare: skin rashes have been reported If used properly, side effects are uncommon A yeast infection of the mouth may occur Prevent by using a holding chamber and rinsing the mouth after use

Category	Common Examples: Brand Names	Common Examples: Generic Names	Common Side Effects
Combination Drugs • A combination of an inhaled long-acting bronchodilator and inhaled anti-inflammatory drugs	Advair Diskus	Fluticasone Salmeterol	Same as above
Anti-leukotriene drugs • Oral medications that reduce inflammation in the airways by interfering with the inflammation	Accolate Singulair	Zafirlukast Montelukast sodium	Side effects are rare. May include headache and/or stomachache
Oral Steroids • May be needed for severs asthma attack • Typically given daily or twice a day for short periods of time (a "burst") so not usually given at school	Prelone Medrol Pediapred	Prednisone Prednisolone methylprednisolone	Side effects depend on the length of treatment and dosage; may include: weight gain, increased appetite, mood changes

Adopted from: American *Lung Association of Washington, Asthma Management in Educational Settings.*

Contraindications:

- The use of beta blockers are indaral (procanoid, atenolol, or similar medications) can pose the possibility of broncospasm in patients with asthma and block the effectiveness of agents such as albuterol, pircuterol, or salmeterol.
- The use of tharphylline and wrtrorycin may lead to increased levels of theophylline.
- If a school nurse has any questions about medications which may interact with asthma medications, she/he should contact the school medical advisor or the student's primary health care provider.

Asthma Medication Log for the School Year _____
Nursing Services Unit

Student Name_____ Number_____ DOB _____
Teacher_____ Room_____
Medication_____ Dose/Route_____ Time_____
Instructions_____
Personal Best Peak Flow

Date	Time	Peak Flow Zone Before Med Given	Med Dose Delivered	Peak Flow Zone After Med Given	Health Staff Initials	Parent Notified	Comments

Signature_____ Initials_____ Date_____
Signature_____ Initials_____ Date_____
Signature_____ Initials_____ Date_____

Date_____

From the Desk of _____
School Nurse at _____ School

Dear Parent/Guardian,

You have noted Asthma on your student's emergency card. To keep your student safe at school and control his/her asthma:

1. Please complete the top portion of the attached form.
2. Provide the name of your student's medical provider so we may fast this from to him/her.
3. Sign and date the form
4. Return this form and any necessary medication to their health room

If you do not have health insurance, pleas contact me so that I may help you enroll in Medicaid or find another source of health care. Please feel free to contact me with any questions you may have.

Thank you.
Signed: _____ School Nurse
I am at this school: M T W TH F Hours: _____
Phone _____ Fax:_____ Email: _____

Date_____

From the Desk of _____
School Nurse at _____ School

Dear Parent/Guardian,

You have noted Asthma on your student's emergency card. To keep your student safe at school and control his/her asthma:

5. Please complete the top portion of the attached form.
6. Provide the name of your student's medical provider so we may fax this from to him/her.
7. Sign and date the form
8. Return this form and any necessary medication to the health room

If you do not have health insurance, pleas contact me so that I may help you enroll in Medicaid or find another source of health care. Please feel free to contact me with any questions you may have.

Thank you.
Signed: _____ School Nurse
I am at this school: M T W TH F Hours: _____
Phone _____ Fax:_____ Email: _____

Provider/Asthma Communication Form

Date: _____
Provider Name: _____

The following is being provided for you information and records regarding:
Student Name: _____ DOB_____
School: _____

☐Please complete attached order form.

☐Visits school health office frequently because of symptoms related to asthma.
Details: _____

☐Missed _____ days in _____ period of time, possibly due to asthma.

☐Is not complying with asthma medication at school or the treatment plan you have provided.
Details: _____
_____

☐Is not fully participating in P.E. because of symptoms related to asthma.
Details: _____
_____

☐Has required emergency management of asthma (911 or ER referral).
Details: _____
_____

☐Please reassess this child and his/her current medical regimen.

Do not hesitate to contact me if you have any questions or concerns. Thank you.

Sincerely,

_____
School Nurse Signature

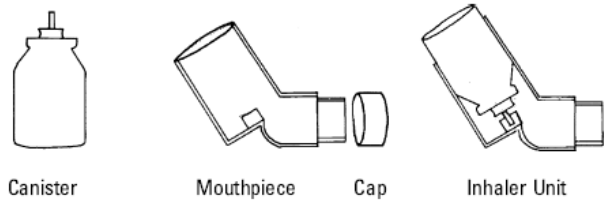
_____
School Nurse Printed Name

Phone _____ Fax:_____ Email: _____
I am at this school: M T W TH F Hours: _____

Albuquerque Public Schools
Nursing Services

Taking Asthma Medications

Metered Dose Inhaler (MDI)
Other Names: Inhaler, “Puffer,” Canister




Proper Technique

Directions: Read through all steps before beginning.

Step 1..... Place canister in the mouthpiece and remove the cap.
Step 2..... Shake the metered dose inhaler (MDI) unit rapidly for three seconds.
Step 3..... Blow your air out all the way.
Step 4..... Open your mouth and hold the inhaler with the mouthpiece just outside your mouth and pointing toward the back of your mouth.
Step 5..... As you begin to breathe in, press down on the canister and continue to take a slow, deep breath in.
(You want the medicine to be carried down with your breath of air into the lungs.)
Step 6..... Hold your breath while you slowly count to 10.
Step 7..... Release your breath and breathe normally.
Step 8..... Wait one to two minutes.
Step 9..... Repeat the procedure for each additional prescribed puff, beginning with Step 3. Shake the MDI again.

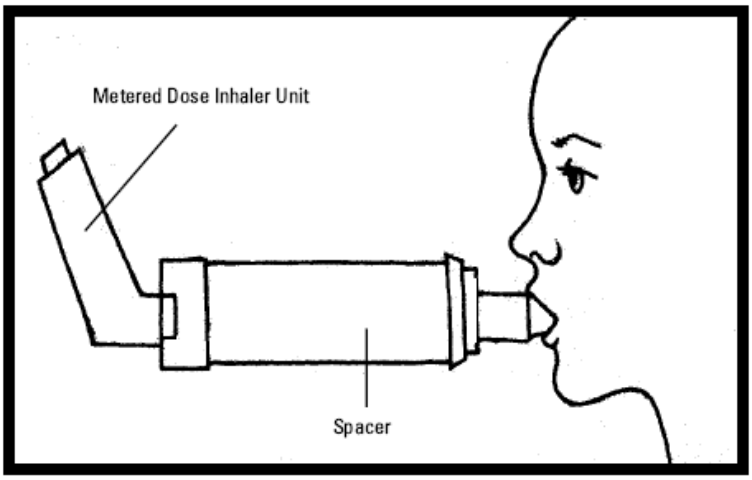
Learning to use an inhaler the correct way takes practice! The use of a spacer is highly recommended to assist the child with getting the medicine down to the airways instead of to the back of the throat.

With permission from Patient & Family Education: Living with Asthma Children's Hospital and Regional Medical Center, Seattle, WA AMES: Asthma Management in Educational Settings American Lung Association of Washington_02/01

Taking Asthma Medications

Metered Dose Inhaler (MDI) with AeroChamber Spacer

Learning how to use an MDI properly takes a lot of practice. Unless your child's technique is really good, most of the medicine is likely to hit the tongue or the back of the throat. Using a spacer with the MDI makes the treatment easier. Spacers help the medicine get down to the small airways and can help reduce side effects. The AeroChamber is one of many types of spacers available.



Directions: Read through all steps before beginning.

Step 1..... Set up your metered dose inhaler (MDI) as usual. Remove the cap on the spacer.
Step 2..... Shake the MDI rapidly for three seconds.
Step 3..... Insert the inhaler (MDI) into the spacer.
Step 4..... Tell your child you will ask her to try hard to hold her breath for a count of 10 after she breathes in the medicine.
Step 5..... Press down on the canister in order to fill the AeroChamber with medicine.
Step 6..... Have your child seal her lips around the mouthpiece of the spacer and take in as slow, deep breath.
Step 7..... Have your child hold her breath while you slowly count to 10.
Step 8..... Have your child release her breath and breathe normally.
Step 9..... Wait one to two minutes.
Step 10 .....Repeat the procedure for each additional prescribed puff, beginning with Step 4, shaking the MDI again.

With permission from Patient & Family Education: Living with Asthma Children's Hospital and Regional Medical Center, Seattle, WA AMES: Asthma Management in Educational Settings American Lung Association of Washington_02/01

How to Use Your Diskus Dry Powder Inhaler (DPI)

Some asthma medications can be taken in the form of a dry powder using a small, hand-held device called a dry powder inhaler (DPI). Dry powder inhalers deliver medication to the lungs as you inhale through the device. The DPI does not contain propellants or any other ingredients. It contains only the medication.

The Diskus (figure 1) contains 60 doses of medication (Advair, Flovent, or Serevent are the brand names of the medication that may be prescribed for you). It has a dose indicator that counts down the number of doses as you use them. Doses 5 through 0 are in red to alert you to refill your prescription. When the "0" appears in the dose indicator, throw away the Diskus and begin a new one.

Preparing the diskus:

1. Hold the Diskus in your left hand. Place the thumb of your right hand in the thumb grip. Push your thumb as far away from you as it will go. This action opens the Diskus to expose the lever underneath.

2. Slide the lever away from you until it clicks. This action loads the dose of medication. You will see the dose counter decrease by one.

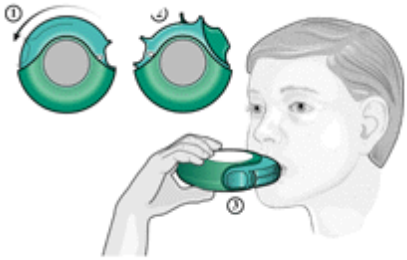


Figure 1: Diskus

Inhaling the medication:

Once you have your DPI loaded, follow these steps to inhale the medication:

3. Turn your head away from the Diskus and breathe out as much air as you comfortably can.

4. Place the Diskus mouthpiece in your mouth and breathe in as steadily, and as deeply as you can.

5. Hold your breath for up to 10 seconds.

6. Remove the Diskus from your mouth and exhale slowly.

7. Close the Diskus by placing your thumb in the thumb grip and slide the grip back toward you, as far as it will go. This action resets the inhaler so it is ready to use for the next treatment.

8. If more than one dose is prescribed, repeat steps 1 through 7 for each dose.

Caring for your DPI

- Keep your dry powder inhaler in a dry place at room temperature.
- Never place the DPI in water.
- Never shake or breathe into the DPI.
- Never use a spacer device with your DPI.
- Unlike other inhaled medications, you may not taste, smell, or feel the dry powder. This experience may be different from what you are used to. As long as you are following the directions, you will get your full dose of medication.
- If you are using a corticosteroid medication, rinse your mouth and gargle after using the DPI. Do not swallow.

This information is not intended to replace the medical advice of your doctor or health care provider. Please consult your health care provider for advice about a specific medical condition.

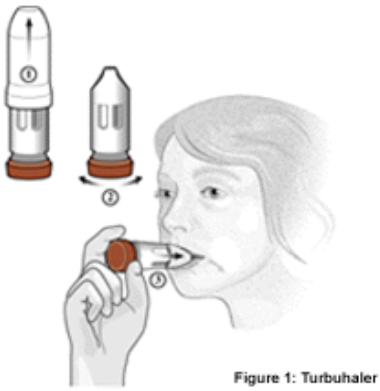


Figure 1: Turbuhaler

How to Use Your Turbuhaler Dry Powder Inhaler (DPI)

Some asthma medications can be taken in the form of a dry powder using a small, hand-held device called a dry powder inhaler (DPI). Dry powder inhalers deliver medication to the lungs as you inhale through the device. The DPI does not contain propellants or any other ingredients. It contains only the medication.

The *Turbuhaler* contains 200 doses of medication (the brand name is Pulmicort). There is a small, clear window on the barrel of the turbuhaler that is a dose indicator. When a red mark appears at the top of this window, 20 doses remain and you should refill your prescription. When the red mark reaches the bottom of the window, throw away the Turbuhaler and begin a new one.

Preparing the Turbuhaler:

When you obtain a new Turbuhaler, you must prime it before you can use it. Hold the Turbuhaler upright. Twist and remove the cover. Twist the brown grip on the bottom fully to the right and then back again. You will hear a "click." Repeat a second time. Your new Turbuhaler is now primed and ready to be loaded with a dose. (Remember, you only need to prime the Turbuhaler the first time you use a new one.)

Inhaling the medication:

1. To load a dose, hold the Turbuhaler upright to ensure proper loading of the medication. Twist the brown grip fully to the right and then back to the left. You will hear a click. The Turbuhaler is now loaded with a dose.
2. Turn your head away from the inhaler and breathe out as much air as you comfortably can.
3. Place the device in your mouth and breathe in as quickly and as deeply as you can.
4. Hold your breath for up to 10 seconds.
5. Take the DPI away from your mouth and exhale slowly.
6. If more than one dose is prescribed, repeat steps 1 through 5 for each dose.
7. When your treatment is complete, replace the white cover and twist it completely to close.

Caring for your DPI

- Keep your dry powder inhaler in a dry place at room temperature.
- Never place the DPI in water.
- Never shake or breathe into the DPI.
- Never use a spacer device with your DPI.
- Unlike other inhaled medications, you may not taste, smell or feel the dry powder. This experience may be different from what you are used to. As long as you are following the directions, you will get your full dose of medication.
- If you are using a corticosteroid medication, rinse your mouth and gargle after using the DPI. Do not swallow.

How To Use Your Metered-Dose Inhaler

Using an inhaler seems simple, but many patients do not use it the right way. When you use your inhaler the wrong way, less medicine gets into your lungs.

For the few days, read these steps aloud as you do them or ask someone to read them to you. Your health practitioner can check how well you are using your inhaler.

Use your inhaler in one of the three ways pictured below (A or B are best, but C can be used if you have trouble with A and B).

Steps for Using Your Inhaler

Getting Ready

1. Take off the cap and shake the inhaler.

2. Breathe out all the way.

3. Hold your inhaler the way your health care provider said (A, B, or C below).

Breathe in Slowly

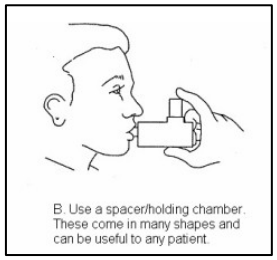
4. As you start breathing in slowly through your mouth, press down on the inhaler one time. (If you use a holding chamber, first press down on the inhaler. Within 5 seconds, begin to breathe in slowly).

5. Keep breathing in slowly, as deeply as you can.

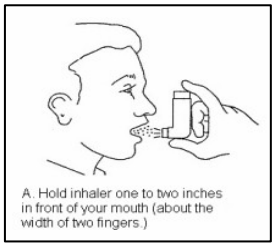
Hold your breath

6. Hold your breath as you count to 10 slowly, if you can.

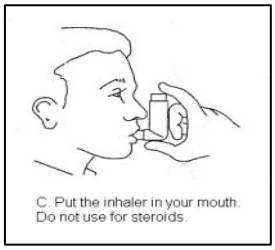
7. For inhaled quick-relief medicine (beta2-agonists), wait 2-5 minutes between puffs. There is no need to wait between puffs for other medicine.



A.
Hold inhaler 1 to 2 inches in front of your mouth (about the width of two fingers).



B.
Use a spacer/holding chamber. These come in many shapes and can be useful to any patient.



C.
Put the inhaler in your mouth. Do not use for steroids.

Clean your inhaler as needed, and know when to replace your inhaler. For instructions, read the package insert of talk to your doctor, other health provider, or pharmacist.

Nebulizing Aerosol Medicines

One of the best ways to treat reactive airway disease, or asthma, is to give **medicines** as an **aerosol**. An **aerosol** is a mist of very fine drops that can be breathed in. The mist of medicine treats the lungs directly so less medicine is needed and it helps quickly.

What Is a Nebulizer?

A nebulizer is a system to make an **aerosol** at home. Brand names are Pulmo Aide and Pro-Neb. Its parts are (see drawing on next page):

- Cup to hold the medicine
- Compressor or motor to push air through the tubing, which pressurizes the liquid medicine into a mist
- Mouthpiece and T-piece so the mist can be breathed in

This nebulizer system is easy to carry, but the compressor must be plugged in. You may want to get a battery-powered compressor if your child is often away from electricity, such as while camping.

What Medicines Are Used?

Medicines such as Albuterol, Atrovent and Cromolyn Sodium can be given by nebulizer. Different medicines can be mixed together. At least 2 milliliters (ml) or 2cc of liquid needs to be in the cup to change into a mist that will get to the lungs. Albuterol comes in pre-mixed vials where you do not add saline, or in bottle form where you use less than 1ml, so you must add 2ml of sterile saline (a water and salt mixture) to have enough liquid to get a mist. Cromolyn Sodium comes in 2ml of liquid, so it does not need saline added. If the health care provider has ordered Albuterol with Cromolyn Sodium, no extra saline is needed — do not add saline, as treatment will take longer.

How Is the Nebulizer Used?

Put the medicine(s) in the cup. Add sterile saline if more liquid is needed. Screw on the top and put on the T-piece. Here are some different ways to give your child the aerosol mist:

- For infants and young children under four years old:
  Use the T-piece without the mouthpiece. With the child in your lap, high chair or infant seat, direct the mist toward the nose and mouth. For more mist, partly cover one end of the T-piece with your thumb or tape, leaving a small opening. (This will allow for breathing if your child takes the T-piece into her mouth.) You may want to read aloud or tell stories to help your child sit quietly.
- For older children: Older children can use the mouthpiece if they can hold it in their mouth and take slow, deep breaths.
- A mask can be used beginning at age three or four years. Because Cromolyn Sodium helps allergic nasal symptoms, a mask helps treat the nose as well as the lungs.
- The nebulizer can be used while your child is sleeping, but be sure to hold the cup up straight all the time. It will take about five to 10 minutes to give your child 2ml of medicine. Shake the cup downward a few times to be sure all the medicine is nebulized. When it is finished, you will see less mist, and the sound of it shooting in the cup will change. If it takes longer than 10 minutes, you are either using too much liquid or the hand-held parts need to be cleaned or replaced.

With permission from Patient & Family Education: Living with Asthma Children's Hospital and Regional Medical Center, Seattle, WA AMES: Asthma Management in Educational Settings American Lung Association of Washington

How to Use Your Peak Flow Meter

The Peak Flow Zone System

Once you know your personal best peak flow number, your doctor will give you the numbers that tell you what to do. The peak flow numbers are put into zones that are set up like a traffic light. This will help you know what to do when your peak flow number changes. For example:

Green Zone (more than ____L/min [80 percent of your personal best number]) signals good control. No asthma symptoms are present. Take your medicines as usual.

Yellow Zone (between ____ L/min and ____ L/min [50 to less than 80 percent of your personal best number]) signals caution. If you remain in the yellow zone after several measures of peak flow, take an inhaled short-acting beta2-agonist. If you continue to register peak flow readings in the yellow zone, your asthma may not be under good control. Ask your doctor if you need to change or increase your daily medications.

Red zone (below _____L/min {less than 50 percent of your personal best number]) signals a medical alert. You must take an inhaled short-acting beta2-agnoist (quick relief medicine) right away. Call your doctor or emergency room and ask what to do, or go directly to the hospital emergency room.

Record your personal best peak flow number and peak flow zones in your asthma diary.

Use the diary to Keep Track of your Peak Flow

Measure your peak flow when you wake up, *before taking* medicine. Write down your peak flow number in the diary every day, or as instructed by your doctor.

Actions to Take When Peak Flow Numbers Change

PEF goes between ___ L/min and ____ L/min (50 to less than 80 percent of personal best, yellow zone).

ACTION: Take an inhaled short-acting beta2-agonist (quick-relief medicine) as prescribed by your doctor.

PEF increases 20 percent or more when measured before and after taking an inhaled short-acting beta2-agonist (quick-relief medicine).

ACTION: Talk to your doctor about adding more medicine to control your asthma better (for example, an anti-inflammatory medication).

Source: Adapted from Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma. National Asthma Education and Prevention Program, National Heart, Lung and Blood Institute, 1997.

Recognizing Asthma Symptoms

Persistent cough

Coughing, wheezing, chest tightness, shortness of breath after physical activity

Low level of stamina during physical activity

Reluctance to participate in school activities and/or physical activity

Excessive (more than one day/month) of absences from school

Frequent visits to nurses' office for respiratory symptoms

Acute Symptoms Requiring Prompt Action

Coughing or wheezing

Difficulty in breathing

Chest tightness or pressure reported by student

Low peak flow

Resources for New Mexico School Nurses

New Mexico

Asthma Allies, LLC
http://www.asthmaallies.com/

New Mexico Chapter of the American Lung Association
7001 Menaul Blvd.NE, Suite 1A, Albuquerque, NM 87110
http://www.lungusa.org/site/c.dvLUK9O0E/b.39102/

New Mexico Department of Health – Asthma in the Schools Program
http://www.health.state.nm.us/eheb/asthma.html

New Mexico Public Education Department
http://www.ped.state.nm.us/

New Mexico School Health Manual published by New Mexico Department of Health
www.nmschoolhealthmanual.org

New Mexico School Nurses Association
www.nmsna.org

UNM Children's Hospital – Department of Pediatrics
Odile Ball, RN, CRRN, asthma specialty nurse
http://hsc.unm.edu/som/pediatrics/neonatology/history.shtml

National

Allergy and Asthma - Mothers of Asthmatics
www.breatherville.org
www.BreatheAtSchool.org

American Academy of Allergy, Asthma, and Immunology
http://www.aaaai.org/professionals/school_tools.stm
Contains School Nurse Tool Kit and a power point presentation

American Academy of Pediatrics
www.aap.org

American Lung Association
www.lungusa.org

Centers for Disease Control and Prevention - National Center for Environmental Health
http://www.cdc.gov/health/asthma.htm

Children's Environmental Health Network
http://www.cehn.org/

Food Allergy and Anaphylaxis Network

www.foodallergy.org

Indoor Agency Air Quality Information Clearinghouse - U.S.Environmental Protection Agency
www.epa.gov/iaq

National Association of School Nurses (NASN)
www.nasn.org
Journal of School Nursing
NASN Newsletter

National Asthma Education and Prevention Program - National Heart, Lung, and Blood Institute
www.nhlbi.nih.gov

School Asthma Allergy Information Resource
http://www.freebreather.com

See General Resources for additional information and resources available in Spanish.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

VIII. THE TEACHING STAFF

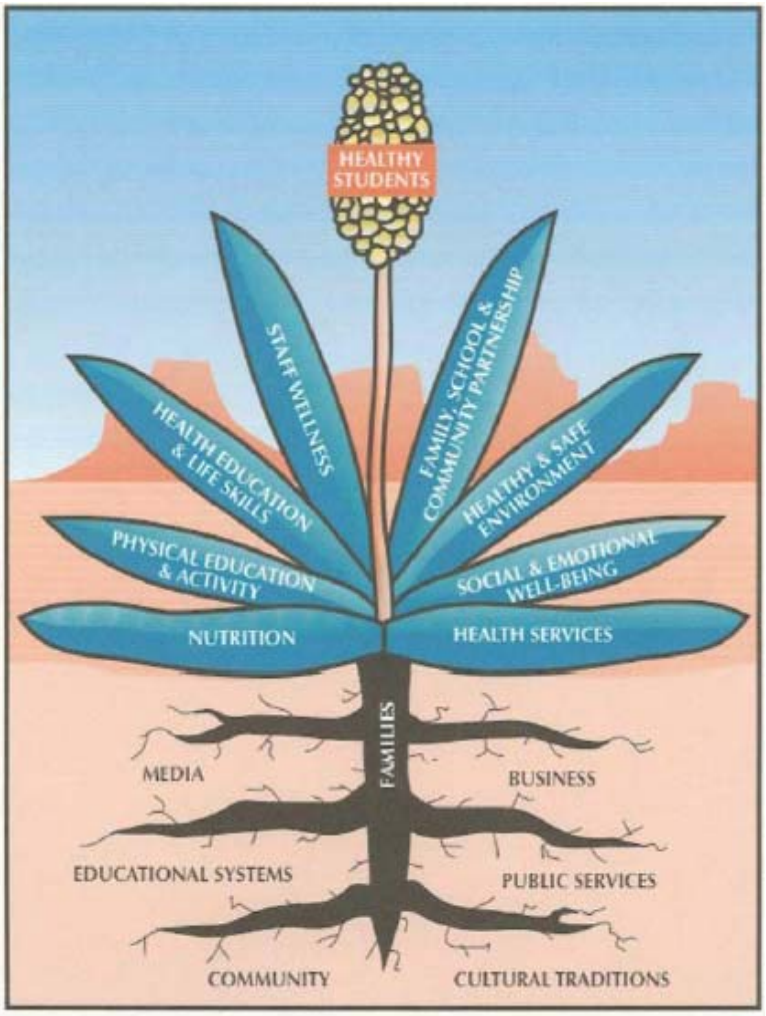


TABLE OF CONTENTS

Important Points

Teachers should identify students with asthma and allergies at the start of the school year.

Students with asthma should be encouraged to participate fully in all school opportunities.

The classroom should be free of potential asthma "triggers."

Sensitivity to the needs of students with asthma and food allergies is essential.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Food allergies can be life threatening.

Teaching Staff Responsibilities

Considering the number of hours students with asthma will spend in the school environment, every member of the teaching staff has a role in helping and supporting these students. Recognizing and being sensitive to their needs will go a long way in ensuring that students with asthma fit into the school environment. When they are encouraged and feel comfortable about having their needs met, students will be more likely to attend school and be better achievers.

As the school year begins it is important to know which students have been diagnosed with asthma and allergies and what triggers are likely to start an asthma episode. The school nurse can provide the appropriate information. Potential classroom triggers can include chalk dust, pets, mold, fragrances, cold air, and stress to name a few. Because it is possible for an episode to occur anywhere (classroom, playing field, cafeteria, school bus, field trip), it is essential for every staff member to be able to identify the onset of asthma symptoms and be prepared to help the student. The school nurse is an excellent resource for helping with classroom trigger identification and asthma management. Everyone shares a major responsibility in asthma management and should know what to do in the event of an emergency.

In addition to being knowledgeable about asthma and its management, the teaching staff has a responsibility to be sensitive to the special needs of students with asthma. Some students may already have an individualized education plan (IEP) or a 504 plan. Every student with asthma deserves:

- encouragement to participate in all school classes and activities (assigning a "buddy" may help promote participation)
- the opportunity to carry and self-administer medications when the ability has been demonstrated
- a plan for making up missed schoolwork agreed upon by the student and parents and established at the start of the school year
- educated and understanding classmates
- assistance in being independent in asthma management.

The teaching staff will need to think and plan ahead for activities such as field trips, science classes, and parties to allow students with asthma to participate. They must not be made to feel different or responsible for making classmates miss out on opportunities.

Because teaching staff members spend a considerable amount of time with students, they are in an ideal situation to recognize when a student's asthma symptoms are worsening. They may even be the first to identify a student with undiagnosed asthma due to repeated coughing in the classroom or outdoors. It is very important to report symptoms or symptom changes to the school nurse and parents. This information is extremely helpful in better management of asthma.

Untreated food allergies have caused death.

Ensuring that the classroom is an asthma friendly environment also requires some thought and planning, as well as cooperation from the custodial staff. Rooms must be kept as dust free and clean as possible. Bookshelves, rugs, lamps, stuffed furniture and toys, chalkboards, erasers, windowsills, and pets can be sources of dust and dander. Odors from paints, markers, perfumes, sprays, scented candles, smoke, and cleaning supplies need to be avoided. Mold can develop from over-watered plants, leaks, or any source of standing water. During heavy pollen seasons, opening windows for fresh air may be problematic. Classrooms need to be fun, interesting places to learn not sterile, lifeless environments. Achieving an appropriate balance is far from easy and will require cooperation from students, staff, and parents.

Additionally teaching staff members need to be aware of **food allergies** and the problems associated with them. Research suggests that children with asthma are at a greater risk for severe allergic reactions to foods. The eight foods that account for 90% of allergic reactions are **peanuts**, **eggs, fish, milk, wheat, soy, tree nuts (walnuts and pecans), and shellfish.** Classroom parties, field trips, and the celebration of special events, such as birthdays, will require planning to avoid an allergy episode. Again, the school nurse can provide information on students with food allergies and the precautions that need to be taken.

Tips For The Classroom Teacher

Be aware of students in the classroom with asthma.

Know the early warning signs of an asthma episode.

Get information on managing asthma in the classroom from the school nurse and understand the steps to take in case of an asthma episode.

Obtain a copy of the *Asthma Action Plan* for each student with asthma.

Know the possible side effects of asthma medications and how they may impact student performance. Refer any problems to school and nurse and parents. Common side effects that need to be reported include: nervousness, nausea, jitteriness, hyperactivity, and drowsiness.

Understand that a student with asthma may feel:

- drowsy or tired
- different from other students
- anxious about access to medication
- embarrassed and/or withdrawn if an asthma episode disrupts school activities.

Help students feel comfortable by recognizing these feelings.

Maintain confidentiality.

Educate classmates about asthma so they can be more understanding.

Encourage the student with asthma to participate fully in physical activities.

Allow a student to engage in less vigorous activity if asthma precludes full participation.

Develop a clear procedure with the student and parent for handling schoolwork missed due to asthma.

Determine a plan for any accommodations needed for class field trips.

(Adapted from Managing Asthma in Connecticut Schools)

Allergy-Proofing the Classroom

Teaching Equipment

- Clean chalkboards when students are not in the classroom. Clean erasers outside.
- Paints and markers often have strong fumes. Replace tops when not in use or use unscented markers.
- Stuffed animals and toys should be made of synthetic material, washed several times a year, and stored in plastic containers.
- Avoid classroom pets whose feathers and fur leave dander in the classroom air.

Furniture

- Dust bookshelves and other horizontal surfaces weekly when students are not in classroom.
- Lamps should have plain, rather then pleated shades that can trap dust.
- Sofas or stuffed chairs should be vacuumed weekly.
- Wipe up any spills immediately and dry surface well.
- Avoid scented candles.

Windows

- Check the pollen count before opening windows.
- Keep windows closed during windy, dusty weather.

Teachers and Staff

- Avoid perfumes, scented talcum powder, and hair sprays.
- Do not smoke in the school environment.
- Remember that smoking residue remains on clothing and in hair.

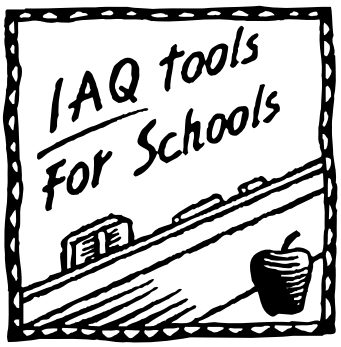
Classroom Cleaning Supplies

- Keep all cleaning products out of the reach of students.
- Be certain cleaning products are recapped and stored properly.
- Avoid aerosol sprays when students are in the classroom.

Natural Cleaning Agents

- White or apple cider vinegar removes mold, mineral deposits, and crayon marks.
- Baking soda is a good general cleaner and is a rug and refrigerator deodorizer.
- Club soda is a good spot remover.
- Clorox bleach solution is a viricide, mold remover, and cleaning agent.
- Use liquid (mild or unscented) rather than bar soap.

(Adapted from Managing Asthma in Connecticut Schools)



Teacher's Classroom Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

Assess the status of the following:

1. GENERAL CLEANLINESS

		Yes	No	N/A
1a.	Assure rooms are dusted and vacuumed regularly	❑	❑	❑
1b.	Assure rooms are free of clutter	❑	❑	❑
1c.	Assure that trash is removed daily	❑	❑	❑
1d.	Assure that no food is stored in classroom overnight	❑	❑	❑
1e.	Assure that animal food is stored in tightly sealed containers	❑	❑	❑
1f.	Assure room is free of pests and vermin	❑	❑	❑
1g.	Used unscented, school-approved cleaners and air fresheners, if any, in rooms	❑	❑	❑

2. ANIMALS IN THE CLASSROOM

2a.	Minimized exposure to animal allergens	❑	❑	❑
2b.	Assure that animals are kept in cages (as much as possible)	❑	❑	❑
2c.	Assure that cages are cleaned regularly	❑	❑	❑
2d.	Placed animal cages away from supply and return vents	❑	❑	❑
2e.	Consulted school nurse about student allergies or sensitivities (privacy laws may limit the information that health officials can disclose)	❑	❑	❑
2f.	Identified potential allergies of students	❑	❑	❑
2g.	Moved sensitive students away from animals and habitats	❑	❑	❑

3. DRAIN TRAPS IN THE CLASSROOM

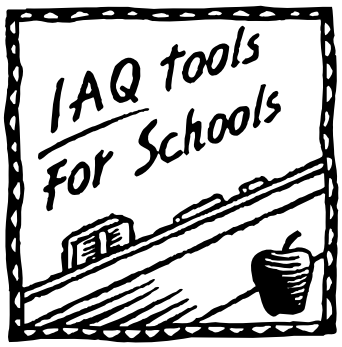
3a.	Assure that water is poured down floor drains once per week (approx. 1 quart of water)	❑	❑	❑
3b.	Assure that water is run in sinks at least once per week (about 2 cups of water)	❑	❑	❑
3c.	Assure that toilets are flushed once each week, especially if not used regularly	❑	❑	❑

4. EXCESS MOISTURE IN CLASSROOMS

4a.	Assure that condensate is wiped from windows, windowsills, and window frames	❑	❑	❑
4b.	Assure that cold water pipes are free of condensate	❑	❑	❑
4c.	Assure that indoor surfaces of exterior walls are free of condensate	❑	❑	❑
4d.	Assure areas around and under classroom sinks are free of leaks	❑	❑	❑
4e.	Assure classroom lavatories are free of leaks	❑	❑	❑
4f.	Assure ceiling tiles and walls are free of leaks (discoloration may indicate periodic leaks)	❑	❑	❑
4g.	Assure that spills are cleaned promptly	❑	❑	❑

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.



5. THERMAL COMFORT

	Yes	No	N/A
5a. Assure moderate temperature (should generally be 72°F–76°F)	❑	❑	❑
5b. Assure there are no signs of draftiness	❑	❑	❑
5c. Assure that students are not seated in direct sunlight	❑	❑	❑
5d. Assure that indoor humidity is maintained at acceptable levels (between 30 and 60 percent)	❑	❑	❑

6. VENTILATION

6a. Located unit ventilator	❑	❑	❑
6b. Located air supply and return vents	❑	❑	❑
6c. Assure air is flowing from supply vent	❑	❑	❑
6d. Assure the air supply pathway is not obstructed	❑	❑	❑
6e. Assure there are no vehicle exhaust, kitchen/food, and chemical odors in the classroom	❑	❑	❑
6f. Assure there are no signs of mold or mildew (refer to **Appendix H** of the ***IAQ Reference Guide***)	❑	❑	❑
6g. Determined operability of windows	❑	❑	❑

7. EDUCATIONAL SUPPLIES (Art, Science, Industrial/Vocational)

7a. Reviewed supplies and their labels	❑	❑	❑
7b. Assure that Material Safety Data Sheets are accessible	❑	❑	❑
7c. Developed and implemented spill clean-up procedures	❑	❑	❑
7d. Labeled all chemicals accurately with date of receipt/preparation and pertinent precautionary information	❑	❑	❑
7e. Assure that supplies are stored according to manufacturers' recommendations	❑	❑	❑
7f. Understood and followed recommended procedures for disposal of used substances	❑	❑	❑
7g. Assure that compressed gas cylinders are stored securely	❑	❑	❑
7h. Separated storage areas from main classroom area and ensured they are ventilated separately	❑	❑	❑
7i. Used diluted substances rather than concentrates, wherever possible	❑	❑	❑
7j. Minimized exposure to hazardous materials (i.e., used non-hazardous materials and pre-mixed products)	❑	❑	❑
7k. Assure that fume hoods capture respirable particles, gases, and vapors released within them	❑	❑	❑

8. LOCAL EXHAUST FANS

8a. Identified major pollutant-generating activities, if any	❑	❑	❑
8b. Located exhaust fan(s), if any	❑	❑	❑
8c. Determined that fans operate	❑	❑	❑
8d. Assure that adjacent rooms or halls are free of odor	❑	❑	❑

9. LOCKER ROOM

9a. Assure locker room and showers are cleaned regularly and properly	❑	❑	❑
9b. Checked that soiled clothes are removed regularly	❑	❑	❑
9c. Assure that wet towels are removed from locker room	❑	❑	❑
9d. Assure that there is water in the drain trap	❑	❑	❑
9e. Verified that the local exhaust fan is functioning properly and used			

Resources for Teachers and Students

New Mexico

New Mexico Chapter of the American Lung Association
www.lungusa2.org/airzonanewmexico
7001 Menaul Blvd.NE, Suite 1A, Albuquerque, NM 87110
A is for Asthma - pre-school video
Open Airways - 6 lessons for grades 3-5
Best of Superstuff - 6-8 yrs.
Not on Tobacco (NOT) - 10 session curriculum for teens

New Mexico Department of Health – Asthma in the Schools Program
http://www.health.state.nm.us/eheb/asthma.html

National

Asthma and Allergy Foundation of America
www.aafa.org
Power Breathing - variety of instructional modalities for teens

American Academy of Allergy, Asthma, and Immunology
www.aaai.org

American Academy of Pediatrics
www-aap.org

American Lung Association
www.lungusa.org

Centers for Disease Control and Prevention - National Center for Environmental Health
www.cdc.gov/nceh/asthma

Food Allergy and Anaphylaxis Network
www.foodallergy.org
11781 Lee Jackson Hwy., Suite 160, Fairfax. VA 22033-3309
Alexander, The Elephant Who couldn't Eat Peanuts
It Only Takes One Bite

Indoor Air Quality Information Clearinghouse - U.S. Environmental Protection Agency
www.epa.gov/iaq

National Asthma Education and Prevention - National Heart, Lung, and Blood Institute Program
www.nhlbi.nih.gov
Asthma Awareness: Curriculum for Elementary Classroom (K-6)

School Asthma Allergy Information Resource
www.schoolasthmaallergy.com
Just for Teachers, Kids Corner, and Teen Corners

Web Sites

Allie the Allergic Elephant
www.allergicchild.com

Asthma and Allergy Foundation of America
www.aafa.org
Power Breathing – a variety of instructional modalities for teens

Environmental Kids Club
www.epa.gov/kids

Fankids
www.fankids.org
(2 web sites, one for young children and one for teens)

Kids Corner
www.schoolasthma.com
Includes: interactive games, downloadable coloring book, how to use an inhaler

Kids with Food Allergies, Inc
www.kidswithfoodallergies.org

National Heart, Lung, and Blood Institute
www.niehs.nih.gov/kids/asthma.htm
Includes: Kids' Pages with dust games and Air: Your World Indoors

National Jewish Center
www.njc.org/disease-info/disease/asthma/kids/wizard-index.aspx
Asthma Wizard

Playtime
www.aanma.org/playtime

Teen's Corner
www.schoolasthma.com
Includes: peak flow meter diary, Asthma Buster's Club, tobacco free information

Zoey and the Zones
www.zoeyzones.com

Food Allergies

Alexander, The Elephant Who couldn't Eat Peanuts from the Food Allergy Network
4744 Holly Wood Ave., Fairfax. VA 22030
video about food allergies for elementary age students

Allie the Allergic Elephant: A Children's Story of Peanut Allergies by Maggie Nichols
ages 5-9, story of an elephant who learns to say "no thank you" to peanuts
has website

Taking Food Allergies to School by Ellen Weiner
ages 9-12, a boy learns the ways that food allergies affect his body
has allergy quiz and allergy-free pizza recipe

The Peanut Butter Jam by Elizabeth Sussman Nassau
ages 6-9, describes how a young boy takes control of his peanut allergy

The Peanut Pickle by Jessica Ureel
ages, 6-10, describes how a young boy takes control of this peanut allergy

Elementary School

Asthma Detectives by Carol Shenise from Glaxo Smith Kline
ages 7-11, story for parents to read to children with activity sheets

Brianna Breathless Easy by Virginia Kroll
ages 6-9, a story about a young girl who learns she has asthma and how to control it

Sportsercise! by Kim Gosselin
ages 6-9, despite having asthma a boy learns to participate on a sports team

Taking Asthma to School by Kim Gosselin
ages 6-9, by a child with asthma, includes "Asthma Kids Quiz" and tips for teachers

The ABC's of Asthma of Asthma by Kim Gosselin
ages 5-7, easy ABC book with basic information about asthma

The Lion Who Had Asthma by Jonathan London
ages 5-7, colorful text for young children with asthma

Zoey and the Zones by Shawn Mc Comick
ages 6-10, story of a car with asthma that learns to manage his symptoms Excellent source of information. Also addressed consequences of child stopping medications. It also has a companion parent workbook and a website

*Zooallerg*y by Kim Gosselin
ages 6-9, story of trip to allergist and then to zoo

Middle School

The Babysitter's Club by Ann Martin
Ages 11-15, girl rushed to hospital because of an asthma episode while babysitting

B*reathe Easy: Young People's Guide to Asthma*, 2nd edition by Jonathan Weiss
ages 10-15, advice from a 13 year boy to other young people

Jackie Joyner-Kersee: Champion Athlete
ages 13-17, story of an athlete's career while coping with asthma

Relieve the Squeeze: How to Take Control of Your Asthma by Peggy Strauss
ages 10-15, basic information with advice to take control by knowing triggers
has companion video

Parents

Help Your Child Gain Control Over Asthma
CDC and EPA
EPA# 402-F-04-021
Can be ordered in Spanish and English from EPA
Written at an easy to read level fro adults

Kids Breathe Free: A Parent's Guide for Treating Children with Asthma by Prichett and Hull Associates, Inc. ages 5-9, simple text with cartoons, for parents to share with children

See General Resources for additional information and resources available in Spanish.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

IX. THE PHYSICAL EDUCATION STAFF

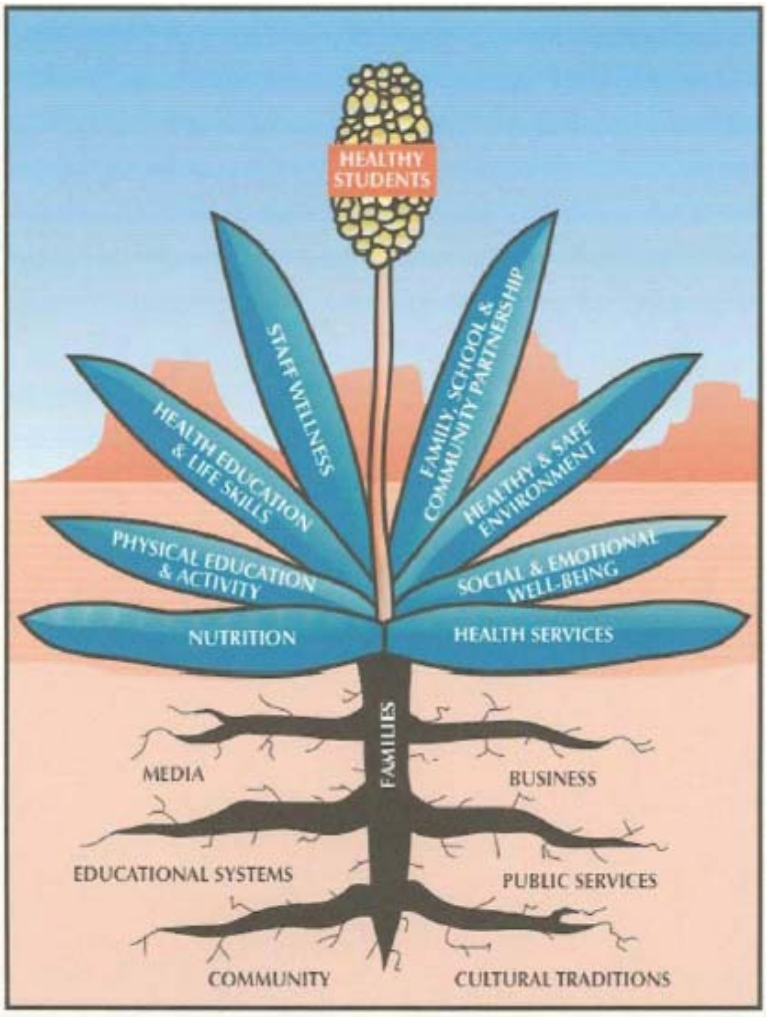


TABLE OF CONTENTS

Physical Education (PE) Staff Responsibilities

Important Points

Physical education staff members have a major responsibility in working with students who have asthma and allergies and encouraging their full participation.

Students with asthma and allergies should be identified at the start of the school year.

Warm- up and cool-down activities are important for all students, especially those with asthma.

If prescribed, appropriate medications must be used before exercise.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Members of the physical education staff have a unique responsibility in working with students who have asthma. Physical activity is important for these students and they should be encouraged to participate as fully as possible. Because asthma may be exercise induced, physical education staff should be watchful and alert. Furthermore, exercise induced asthma can occur without having a chronic asthma diagnosis.

Each school year as physical education classes begin, it is essential that teachers, coaches, trainers, and athletic directors meet with the school nurse to identify students with asthma. Like all other faculty members, PE staff members need to be knowledgeable about asthma, onset symptoms, potential triggers, and management plans. Additionally, they need to be knowledgeable about the medications used in conjunction with physical activity (especially inhalers), peak flow rates, and asthma emergency plans. Access to emergency medications is essential. These special responsibilities occur because physical activity is often where asthma symptoms first present and asthma episodes are likely to happen. Assistance of the school nurse should be sought in identifying students with asthma and in determining how to best help them manage their symptoms. There should be an awareness of exercise induced asthma (EIA).

Special responsibilities of all members of the physical education staff include:

- monitoring of warm up and cool down exercises
- encouraging good hydration for physical exercise
- knowledge and recognition of the symptoms of respiratory distress
- awareness of symptoms indicating the onset of an asthma episode
- insistence upon appropriate use of inhalers BEFORE exercise begins if prescribed
- training in the use of emergency drugs such as inhalers and Epi-Pens
- being certain that students with asthma have an assigned "buddy."

Physical education staff members need to be quick to recognize when a student is having an asthma episode. If coughing, wheezing, chest tightness, shortness of breath, or paleness begins, it is time for the student with asthma to cease physical activity. Medications to treat an acute asthma episode must be available to the student. Notifying the school nurse at the onset of the asthma episode is highly recommended. These episodes can be life threatening if left untreated.

Asthma symptoms need to be recognized and appropriate steps taken.

Untreated asthma can result in death.

PE staff members need to be especially alert for symptoms indicating an emergency and requiring **immediate medical attention**:

- **tightened neck muscles**
- **sucked in skin around the chest**
- **blue or gray lips or fingernails**
- **flared nostrils.**

The physical education staff members need to be sensitive to the needs of students with asthma. Students should be encouraged to exercise and participate; yet their limits must be recognized and respected. This may require some modification in activities. Moderate intensity activities such as walking may need to be substituted for higher intensity activities such as running. Warm ups before and cool downs after exercise, plus good hydration are important for all students and especially important for students with asthma. Consideration should be given to temperature, wind, and high pollen counts when exercising out of doors, as these are definitely triggers for asthma. Helpful information about environmental conditions can be found at www.pollen.com .

Physical education teachers may be the first staff members to identify students whose asthma symptoms are increasing or who have undiagnosed asthma. Extended bouts of coughing should always be noted. Coughing after physical exercise is a significant asthma indicator. Reporting symptoms of respiratory distress to the school nurse and parents is extremely important.

Should a student appear to be using asthma as an excuse to decrease participation, determine that an avoidance pattern is occurring before taking action. A student should not be encouraged to "tough it out" as this may increase stress and lead to an increase of symptoms. Managing the need for physical activity and the need for appropriate asthma care is a delicate balance and requires sensitivity and understanding. Again, the assistance of the school nurse should be sought for guidance in these difficult situations. The importance of keeping the students with asthma involved and active should not be underestimated. The physical education staff has an extremely important role in effective asthma management.

Breathing Difficulties Related to Physical Activity for Students With Asthma: Exercise-Induced Asthma

Information for Physical Educators, Coaches and Trainers

First Aid for Exercise-Induced Asthma

If, during physical activity, you notice that a student is having difficulty breathing, coughing frequently, or wheezing (noisy when breathing out), it may be asthma:

- **STOP the student's** activity and encourage the student to sit and rest.
- **Call 911** immediately if student requests or is in severe distress—struggling to breathe, lips blue, unable to walk or talk.
- Follow the designated **asthma management plan** (individual student plan, if available, or school protocol).
- Follow the school protocol to **notify the school nurse** (or other designated staff) if medication is not available or if symptoms are not resolved within 5 to10 minutes after using the inhaler.
- **Never** let a child with breathing problems leave the gym or field alone.
- If symptoms resolve, permit students to **resume activity** when they are ready, according to their asthma management plan.
- Follow the school protocol to **inform parents** of the event and document actions taken.

This guidance sheet was developed as a partnership activity facilitated by the NAEPP, coordinated by the NHLBI of the NIH/DHHS

March 2005

STUDENT PARTICIPATION IN PHYSICAL ACTIVITY

Ways To Help Students with Asthma Participate

Identify Students with Asthma

- Ask your school nurse to identify students with asthma
- Obtain a copy of each student's asthma management plan
- Identify students who have demonstrated ability to carry and self-administer medications
- Help insure that medications are available for self-administration
- Discuss triggers, signs, and symptoms that relate to physical activity with students
- Inform parents if student frequently experiences asthma symptoms during physical activity.

Encourage Students to Prepare for Physical Activity

- Have students with prescribed medications pre-treat before exercise
- Encourage warm-up exercises
- Help students avoid their asthma triggers.

Consider Modified Exercise as Needed

- If a student has obvious breathing difficulty (wheezing, coughing) before exercising have the student treat his/her symptoms according to the asthma management plan
- Consider modifying the intensity, location, or duration of physical activity
- When environmental conditions are poor (high pollen counts, wind, freshly cut or sprayed fields, ozone alerts, or extreme cold) remember that students with asthma may need to avoid being physically active outdoors.

Date:_____

Dear Physical Education Instructor:

_____ is under my care for ASTHMA
(Name of Student)

Because exercise is important for the asthmatic child, both physically and psychologically, I am providing information and instructions concerning the child's participation in physical education.

1. He/she should be permitted to remain in regular PE classes and should be able engage in regular physical education activities most of the time. However, during asthma episodes (characterized by cough, wheeze, shortness of breath), activities may have to be temporarily curtailed.

2. Each asthmatic child has a different limit of tolerance to exercise. Please permit the youngster to set his/her own pace on a daily basis. In particular, asthmatics may have difficulty "running laps" and playing competitive soccer and basketball; please do not "force" the child, but let the student participate at his/her own level. Swimming is usually well tolerated and excellent activity for asthmatics.

3. Warm up exercises are often useful in warding off wheezing episodes.

4. We do not wish the student with asthma to feel "different". Please do what is necessary toward accomplishing this and,

5. If the student does have some problem with "endurance" sports, please permit him/her to take the following medication _____ before participating to prevent symptoms.

6. In case of breathing difficulty, talk to the child reassuringly and calmly; have the child take prescribed medication (_____). If the treatment id ineffective or symptoms are severe, notify the school nurse or parent immediately.

We welcome your help.

The student's parent has given a "school medication request" form to transmit to school. Where indicated, permit the child to medicate himself/herself if authorized by physician and parent.

Sincerely,

Physician	**Parent**
Signatures: _____	_____
Address: _____	_____
City, State, Zip _____	_____
Phone: _____	_____

Recommendations developed by The American College of allergists
800 East Northwest Highyway, Suite 1080
(312) 359-2800

Funded by the Asthma and Allergy Foundation of America, The American Academy of Allergy & Immunology and the American Academy of Pediatrics.

Asthma Information for PE Teachers and Coaches

If any student has *any* of the following symptoms:

chest tightness difficulty breathing, wheezing, excessive coughing, shortness of breath

1. Stop activity and help student to a sitting position
2. Stay calm, reassure student
3. Assist student with the use of their inhaler if appropriate
4. Escort student to the health room or call for health room staff for immediate assistance. **Never send the student to the health room alone!**

Call 911 for *any* of these!

- **If breathing does not improve after medication is given.**
- **Student is having trouble walking or talking.**
- **Student is struggling to breathe.**
- **Student's chest and/or neck is pulling in while breathing.**
- **Student's lips are blue.**
- **Student must hunch over to breathe.**

The Following are suggestions on how to help children with asthma to better participate in physical activities and sports.

- **Recognize** and respect their limits.
- **Plan to adjust** the type, pace or intensity of activities during extreme weather, the pollen season, poor air quality, when a student has allergy symptons, or has a peak flow number lower than usual.
- **Permit** less strenuous activities if a recent illness keeps a student from participating fully.

Be creative! Talk to students to find out how he/she feels about exercise. Find out whether he/she has been avoiding it, and if so, why. The following steps may help to make exercise feel safe and possible for your students.

- **Follow the student's asthma action plan and/or health plan.** If indicated, follow pre medication procedures before the student exercise. Know how to easily access the action plan. Consult with the school nurse for clarification.
- **Be sure the student's medications are available** for exercise activities that take place away from school or regular school hours. This preventative medicine enable most students with exercise-induced asthma to participate in any sport they choose.
- **Warm up and cool down** activities will help the students asthma and are a must in cold weather.
- **Keep students' quick relief medications readily available.** Even with precautions, breathing problems may occur. Learn the signs of sever distress and allergic reactions. Have an emergency plan. Do not delay getting medical help for any student with breathing difficulty.
- **Establish good communication** with student's, parents, school staff and the school nurse to maximize participation benchmarks and standards.
- **Encourage exercise and participation in sports for students with asthma.** When asthma is under good control, most students with asthma are able to play most sprots. A number of Olympic medalists have asthma.
- **Take the time to know your students with asthma.** Do not adopt an "oh, he's fine" attitude.

Please remember to never discuss confidential health information in front of other student's or adults.

For more information please contact your school nurse or visit:
http://www.cdc.gov/healhtyouth/asthma/strategies.htm or http://www.winningwithasthma.org/ . This is a GREAT 30 min video about asthma made just for coaches.

APS Nursing Services 3/2007

Resources for Physical Education Staff

Asthma and Allergy Foundation of America
www.aafa.org
Power Breathing – a variety of instructional modalities for teens

Asthma and Exercise
www.schoolasthmaallergy.com

Asthma and Physical Activity in Schools: Making a Difference
from National Institute of Health
http://www.nih.gov/

Exercise and Asthma
from the Asthma and Allergy Foundation of America
www.aafa.org

Keeping Healthy at School: Making Exercise Safe from Allergy and Asthma Network - Mothers of Asthmatics
www.aanma.org

School Asthma Allergy Information Resource
www.schoolasthmaallergy.com
Includes sections just for PE teachers and coaches

See General Resources for additional information and resources available in Spanish.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

X. THE SUPPORT AND OFFICE STAFF

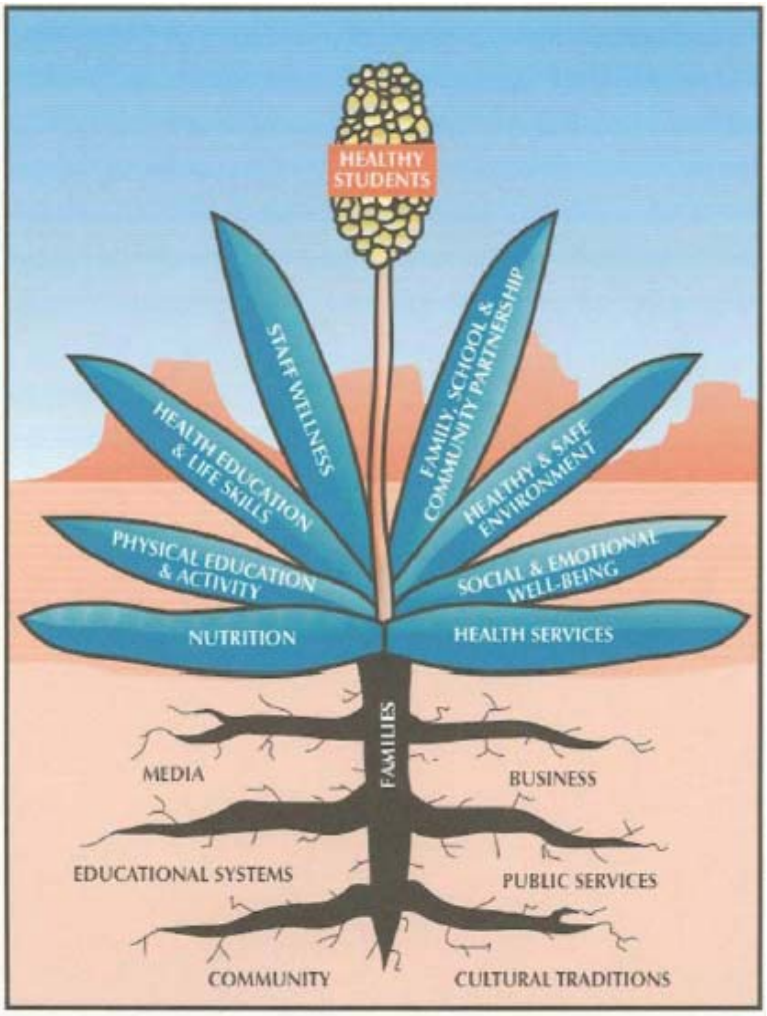


TABLE OF CONTENTS

Important Points

Members of the support staff and the office staff should be prepared to recognize the symptoms of breathing difficulties and know how to respond appropriately.

The support staff should help other school staff members understand the nature of asthma.

Support staff should work with students and parents to make school a successful experience.

Knowledge of resources and appropriate referral processes help provide assistance.

Coordinating efforts with the school nurse will help ensure student success.

Support Staff Responsibilities

Members of the school's support staff including guidance counselors, social workers, psychologists, and various therapists have a responsibility to promote the growth, development, and learning of every student. Additionally they need to help school personnel understand that asthma is an airway disorder that affects breathing, not an emotional or a psychological disease. It is not "all in the student's head." Physical responses to strong emotions, such as laughing or crying, can trigger an asthma episode, because rapid breathing mechanically irritates and constrict the inflamed airways. However, these emotions do not "cause" asthma.

Students who have asthma may need additional support to promote their educational success. It is important that the support staff knows these students and be ready to intercede if help is needed. A brief meeting at the beginning of the school year with students and parents can be an excellent preventive measure. This is especially true if difficulties have been encountered in previous school years.

There are a variety of ways in which the support staff can assist students with asthma. Examples of helpful measures include:

- requesting homework adaptations during periods of illness
- assessing absenteeism patterns
- interpreting the needs of students with asthma to teaching staff
- counseling students who are dealing with stress due to their diagnoses
- promoting independence and self-care consistent with the student's abilities
- encouraging students who may use asthma as an avoidance mechanism
- intervening in instances of harassment.
- making a referral to Children's Medical Services (CMS) through the school nurse

These measures may need to be addressed either through an Individualized Education Plan (IEP) or the development of a 504 plan as appropriate.

Often families who are dealing with the consequences of a chronic illness need additional help and understanding to cope effectively. Outlining behavioral strategies that improve adherence to treatment may prove useful when students have poorly controlled asthma. The support staff is ideally suited to be a listening board and help in the development of strategies to deal with the stress being felt by family members.

Access to care and poverty are issues that families of children with asthma often face. Coordinating efforts with the school nursing staff can lead to the identification of agencies and resources able to provide

Knowledge of resources and appropriate referral processes are needed to provide assistance.

Coordinating efforts with the school nurse will help ensure student success.

additional support. Families may need help in working through the Medicaid process to obtain care and/or reimbursement.

New Mexico provides a wide range of services through Children's Medical Services (CMS). These services are designed to improve health and prevent and reduce the impact of disease and disability in eligible infants, children, and adolescents. Examples of situations that would warrant referral to CMS include:

- child has no medical home
- child has no insurance and/or resources to pay for medications
- child does not get to medical appointments for asthma management and a referral to Children Youth and Families Department (CYFD) is not warranted
- child has been to the ER or been hospitalized for asthma in the past year
- child and/ or family cannot provide the school with appropriate asthma medications and equipment for asthma management
- child and/or family need more asthma education.

CMS offices are located in most New Mexico counties. The contact number is 1-877-890-4692. Phone listings may be found in the Government pages section under New Mexico State Government - Health Department – Districts I-V.

Office Staff Responsibilities

Members of the office staff are an important part of the support system for students with asthma and allergies. Emergency situations are often reported to the office or students experiencing an asthma episode may choose to go there for assistance. Consequently, office staff members should be familiar with the symptoms associated with breathing difficulties and should know how to provide immediate assistance and how to obtain additional help. They need to be familiar with the school's asthma emergency management plan and should be included in any asthma in-service education programs.

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)

Does student have parent/guardian-approved medication?

YES → Administer medication as directed.

NO

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

- Are the lips, tongue or nail beds turning blue?
- Are the symptoms not improving or getting worse?
- Did breathing difficulty develop rapidly?

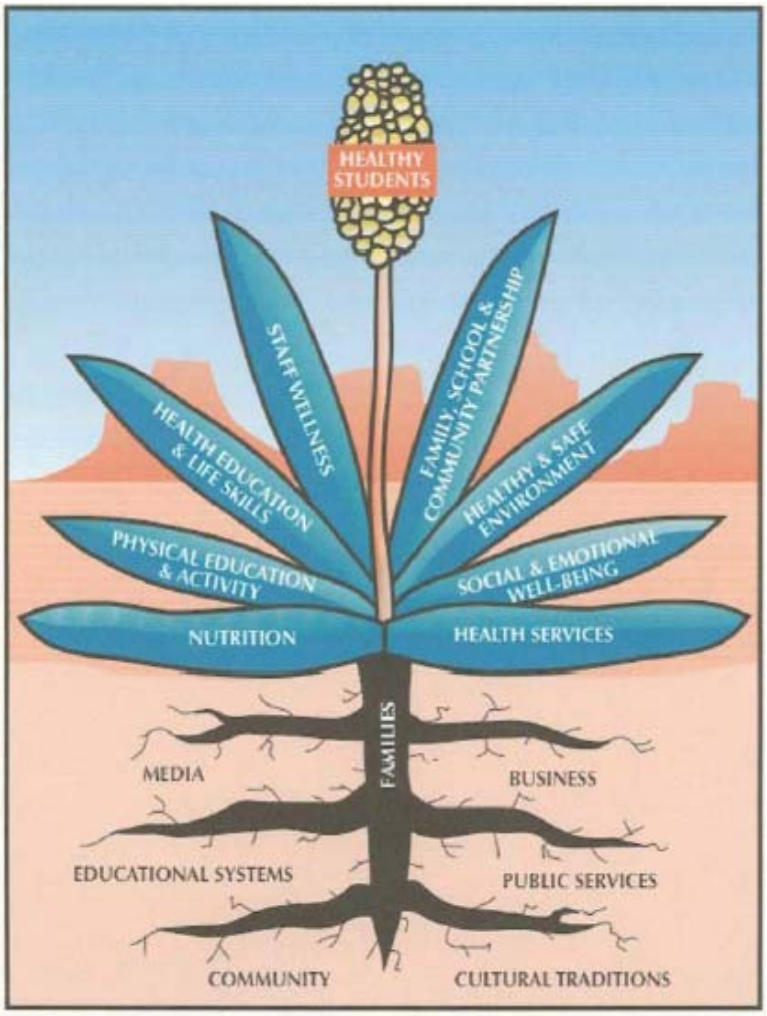
NO → Contact responsible school authority & parent/legal guardian.

YES

CALL EMERGENCY MEDICAL SERVICE.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XI. THE CUSTODIAL AND MAINTENANCE STAFF



THE TABLE OF CONTENTS

Important Points

A clean school is essential in maintaining a healthy school environment.

Cleaning procedures need to be followed carefully and evaluated frequently.

Custodial staff members have an important role in recognizing potential asthma triggers in the school setting.

Air quality problems should be reported promptly.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Custodial Staff Responsibilities

The custodial staff has a very important role in maintaining good indoor air quality in the school environment. A clean school is essential in promoting the health of all members of the school community. The methods used to ensure cleanliness can impact air quality and must be carefully evaluated. All custodians need to be alert to situations that contribute to air pollution and team with the school administration to see that these are managed correctly. A member of the custodial staff should serve on the school's indoor air quality (IAQ) management team to ensure that the highest standards possible are met.

The custodial staff must never underestimate the importance of their role in ensuring a healthy environment for students with asthma. Like all other staff members they need to know how to help a student experiencing an asthma episode. Additionally, they are in an ideal position to help reduce the number of potential asthma triggers in the school environment. Careful attention to cleaning procedures, schedules, and products is essential. Being alert and reporting observations to the appropriate source is an important responsibility of every custodian. There are a wide variety of resources available to provide further information on this topic.

Air quality problems should be reported promptly.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Maintenance Staff Responsibilities

Like the custodial staff, the maintenance staff has a very important role in maintaining good air quality in the school environment. Ideally, all major maintenance work should be scheduled for summer or other school breaks. Realistically, this is often difficult to accomplish. Before projects are started, consideration needs to be given to potential air quality issues. Special attention should be given to painting, carpeting, and roofing projects that can result in strong fumes and/or outgases. The EPA renovation and repair checklist provides helpful guidelines for planning, implementing, and evaluating maintenance activities. While the maintenance staff members may not be assigned to a specific school, they need to remember that they are definitely an important part of the school community.

Ways the Custodial Staff can Work to Promote an Asthma Friendly School Environment

Clean all floor surfaces thoroughly

- Carpets need to be vacuumed several times each week with a high efficiency particulate arresting (HEPA) vacuum to remove the dirt, dust mites, and mold that act as triggers
- Carpets should be steamed cleaned annually and dried thoroughly to avoid mold
- New carpets must be installed allowing adequate time for airing before classes start
- Tile floors need to be mopped
- Hardwood floors need to be dusted or wet mopped

Pay attention to horizontal surfaces

- Bookshelves should be dusted as they trap dusty easily
- Windowsills collect dust and pollen and need to be damp wiped
- Woodwork should be damp cloth dusted weekly
- Students' desktops need to be cleaned regularly, ideally by the students themselves

Remove trash promptly

- Classroom trash should be removed daily
- Special attention should be given to any food products discarded in classrooms
- School grounds should be kept trash free

Manage pests appropriately

- Immediately report indications of pests
- Encourage the use of an integrated pest management system (IPM) that decreases pest attractions and thus eliminates the use of pesticides
- Inform staff, students, and parents if insecticides are used

Inspect heating, ventilation, and cooling systems (HVAC)

- Conduct routine inspections and maintain all systems
- Establish routines for changing any filters
- Clean fans and grates on a regular schedule
- Immediately report any signs of mold or mildew
- Check evaporative coolers for signs of mold and residues

Evaluate cleaning supplies

- Avoid cleaning products that add chemicals to classroom air
- Use natural cleaning agents such as vinegar, baking soda, and Clorox bleach whenever possible - oils can be a potential asthma trigger.
- Report any complaints of irritants to the administration immediately
- Schedule cleaning when students are not in the classrooms when possible
- Store all cleaning supplies in an area with limited access

Building and Grounds Maintenance Checklist

Name: _____

School: _____

Room or Area: _____Date Completed: _____

Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. BUILDING MAINTENANCE SUPPLIES

		Yes	No	N/A
1a.	Developed appropriate procedures and stocked supplies for spill control	❑	❑	❑
1b.	Reviewed supply labels	❑	❑	❑
1c.	Ensured that air from chemical and trash storage areas vents to the outdoors	❑	❑	❑
1d.	Stored chemical products and supplies in sealed, clearly labeled containers	❑	❑	❑
1e.	Researched and selected the safest products available	❑	❑	❑
1f.	Ensured that supplies are being used according to manufacturers' instructions	❑	❑	❑
1g.	Ensured that chemicals, chemical-containing wastes, and containers are disposed of according to manufacturers' instructions	❑	❑	❑
1h.	Substituted less- or non-hazardous materials (where possible)	❑	❑	❑
1i.	Scheduled work involving odorous or hazardous chemicals for periods when the school is unoccupied	❑	❑	❑
1j.	Ventilated affected areas during and after the use of odorous or hazardous chemicals	❑	❑	❑

2. GROUNDS MAINTENANCE SUPPLIES

2a.	Stored grounds maintenance supplies in appropriate area(s)	❑	❑	❑
2b.	Ensured that supplies are used and stored according to manufacturers' instructions	❑	❑	❑
2c.	Established and followed procedures to minimize exposure to fumes from supplies	❑	❑	❑
2d.	Reviewed and followed manufacturers' guidelines for maintenance	❑	❑	❑
2e.	Replaced portable gas cans with low-emission cans	❑	❑	❑
2f.	Stored chemical products and supplies in sealed, clearly-labeled containers	❑	❑	❑
2g.	Ensured that chemicals, chemical-containing wastes, and containers are disposed of according to manufacturers' instructions	❑	❑	❑

3. DUST CONTROL

3a.	Installed and maintained barrier mats for entrances	❑	❑	❑
3b.	Used high efficiency vacuum bags	❑	❑	❑
3c.	Used proper dusting techniques	❑	❑	❑
3d.	Wrapped feather dusters with a dust cloth	❑	❑	❑
3e.	Cleaned air return grilles and air supply vents	❑	❑	❑

4. FLOOR CLEANING

	Yes	No	N/A
4a. Established and followed schedule for vacuuming and mopping floors	❑	❑	❑
4b. Cleaned spills on floors promptly (as necessary)	❑	❑	❑
4c. Performed restorative maintenance (as necessary)	❑	❑	❑

5. DRAIN TRAPS

5a. Poured water down floor drains once per week (about 1 quart of water)	❑	❑	❑
5b. Ran water in sinks at least once per week (about 2 cups of water)	❑	❑	❑
5c. Flushed toilets once each week (if not used regularly)	❑	❑	❑

6. MOISTURE, LEAKS, AND SPILLS

6a. Checked for moldy odors	❑	❑	❑
6b. Inspected ceiling tiles, floors, and walls for leaks or discoloration (may indicate periodic leaks)	❑	❑	❑
6c. Checked areas where moisture is commonly generated (e.g., kitchens, locker rooms, and bathrooms)	❑	❑	❑
6d. Checked that windows, windowsills, and window frames are free of condensate	❑	❑	❑
6e. Checked that indoor surfaces of exterior walls and cold water pipes are free of condensate	❑	❑	❑
6f. Ensured the following areas are free from signs of leaks and water damage:			
Indoor areas near known roof or wall leaks	❑	❑	❑
Walls around leaky or broken windows	❑	❑	❑
Floors and ceilings under plumbing	❑	❑	❑
Duct interiors near humidifiers, cooling coils, and outdoor air intakes	❑	❑	❑

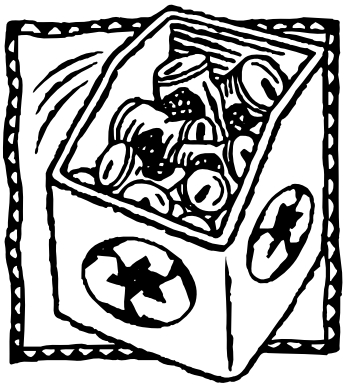
7. COMBUSTION APPLIANCES

7a. Checked for odors from combustion appliances	❑	❑	❑
7b. Checked appliances for back drafting (using chemical smoke)	❑	❑	❑
7c. Inspected exhaust components for leaks, disconnections, or deterioration	❑	❑	❑
7d. Inspected flue components for corrosion and soot	❑	❑	❑

8. PEST CONTROL

8a. Completed the *Integrated Pest Management Checklist*	❑	❑	❑

NOTES



Waste Management Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

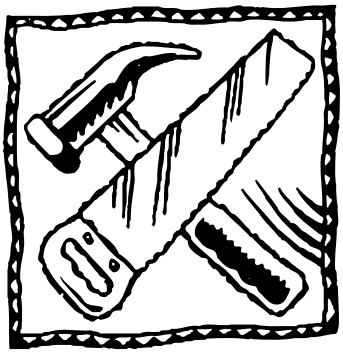
Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. WASTE MANAGEMENT

	Yes	No	N/A
1a. Ensured that waste containers are appropriate for use (for example, food waste containers should have lids)	❑	❑	❑
1b. Ensured that waste containers are lined	❑	❑	❑
1c. Ensured that waste from art, science, vocational classes, etc., are handled separately	❑	❑	❑
1d. Labeled recycling bins clearly	❑	❑	❑
1e. Ensured number of bins and dumpsters is adequate	❑	❑	❑
1f. Ensured appropriate location of dumpsters (i.e., away from air intakes, doors, and operable windows in relation to prevailing winds)	❑	❑	❑
1g. Ensured waste containers are emptied regularly	❑	❑	❑
1h. Ensured appropriate waste removal schedule	❑	❑	❑
1i. Ensured waste is stored in a well-ventilated room	❑	❑	❑
1j. Ensured any exhaust fans in the room are operating properly	❑	❑	❑
1k. Checked waste storage areas for odors, contaminants, or signs of vermin	❑	❑	❑

NOTES



Renovation & Repair Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

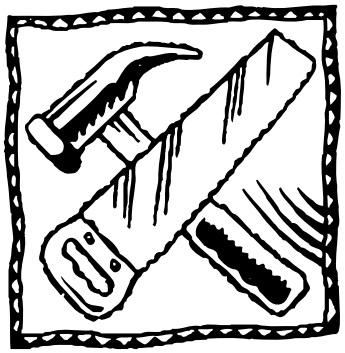
Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. GENERAL ACTIVITIES

	Yes	No	N/A
PRE-RENOVATION			
1a. Notified staff, students, and parents of impending renovations and repairs	❑	❑	❑
1b. Consulted school's asbestos (AHERA) survey, if available	❑	❑	❑
1c. Tested original paint for lead before removing it	❑	❑	❑
1d. Consulted an asbestos professional before starting projects that may disturb asbestos	❑	❑	❑
1e. Planned isolation strategy (from pollutants generated during renovations and repairs) for:			
• Students and staff	❑	❑	❑
• Non-work areas of building	❑	❑	❑
• Ventilation system	❑	❑	❑
1f. Arranged for increased housekeeping during renovations and repairs	❑	❑	❑
1g. Selected products and materials with minimal off-gassing	❑	❑	❑
1h. Included IAQ-related specifications in construction contracts	❑	❑	❑
1i. Evaluated work area for signs of mold before starting renovations or repairs	❑	❑	❑
1j. Scheduled pollutant-producing activities during unoccupied periods	❑	❑	❑
RENOVATION			
1k. Updated school occupants and parents on progress of longer projects	❑	❑	❑
1l. Avoided exposure to mold and bacteria (for example, with protective clothing or close-out procedures)	❑	❑	❑
1m. Determined that housekeeping activities are sufficient to control dirt and dust	❑	❑	❑
1n. Verified that work met contract specifications	❑	❑	❑
CLOSE-OUT			
1o. Allowed time for off-gassing before space is occupied	❑	❑	❑
1p. Cleaned surfaces with wet-wiping and vacuuming (high efficiency vacuuming for fine or potentially toxic dusts such as lead, asbestos, or mold)	❑	❑	❑
1q. Cleaned building system components as needed	❑	❑	❑
1r. Changed ventilation system filters	❑	❑	❑
1s. Balanced and tested HVAC system (if the HVAC systems or rooms served by it were modified)	❑	❑	❑
1t. Followed EPA National Emission Standards for Hazardous Air Pollutants rules for disposal of materials that contained asbestos	❑	❑	❑



2. PAINTING

PRE-RENOVATION	Yes	No	N/A
2a. Confirmed that the painted surface is lead-free	❑	❑	❑
2b. Selected a low-VOC emitting paint that is free of lead, mercury, and formaldehyde	❑	❑	❑
2c. Scheduled painting during unoccupied periods	❑	❑	❑
RENOVATION			
2d. Minimized occupant exposure to odors and contaminants	❑	❑	❑
2e. Used exhaust and supply ventilation to sweep fumes out of building	❑	❑	❑
2f. Blocked ventilation return openings	❑	❑	❑
2g. Used proper storage and disposal practices for paints, solvents, and supplies	❑	❑	❑
CLOSE-OUT			
2h. Allowed paint odors to dissipate before occupants returned	❑	❑	❑
2i. Used supply and exhaust fans to sweep fumes out of the building	❑	❑	❑
2j. Used appropriate storage and disposal practices for paints, solvents, and clean-up materials	❑	❑	❑
2k. Disposed of old paints containing lead or mercury appropriately	❑	❑	❑

3. FLOORING

PRE-RENOVATION			
3a. Ensured that flooring is free of asbestos fibers	❑	❑	❑
3b. Selected low-emitting adhesives and flooring materials	❑	❑	❑
3c. Obtained information about product constituents and emissions	❑	❑	❑
3d. Avoided installing carpet near water sources	❑	❑	❑
3e. Scheduled installation during unoccupied periods	❑	❑	❑
3f. Aired out (off-gassed) new products before installation	❑	❑	❑
RENOVATION			
3g. Followed manufacturers' recommendations for ventilating the work area	❑	❑	❑
3h. Avoided recirculating air from the installation area	❑	❑	❑
3i. Sealed return air grilles, opened doorways, and used exhaust fans to remove airborne contaminants	❑	❑	❑
3j. Vacuumed old carpet (before removal)	❑	❑	❑
3k. Vacuumed subfloor surfaces (after carpet removal)	❑	❑	❑
3l. Sealed joints of hard surfaces and/or entire surface of porous flooring installed near water sources	❑	❑	❑
CLOSE-OUT			
3m. Vacuumed new flooring after installation	❑	❑	❑
3n. Followed manufacturers' recommendations for ventilating the work area space (typical recommendation: allow maximum outdoor air into work area for 72 hours after installation)	❑	❑	❑

4. ROOFING

PRE-RENOVATION			
4a. Scheduled pollutant-producing activities during unoccupied periods	❑	❑	❑
RENOVATION			
4b. Placed "hot pots" of tar away from outdoor air intakes	❑	❑	❑
4c. Modified ventilation to avoid introducing odors and contaminants into building (for example, closed rooftop ventilation units in vicinity of work area and instructed staff and students to keep doors and windows closed)	❑	❑	❑

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)

Does student have parent/guardian-approved medication?

YES → Administer medication as directed.

NO

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

- Are the lips, tongue or nail beds turning blue?
- Are the symptoms not improving or getting worse?
- Did breathing difficulty develop rapidly?

NO → Contact responsible school authority & parent/legal guardian.

YES

CALL EMERGENCY MEDICAL SERVICE.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XII. THE FOOD SERVICE STAFF

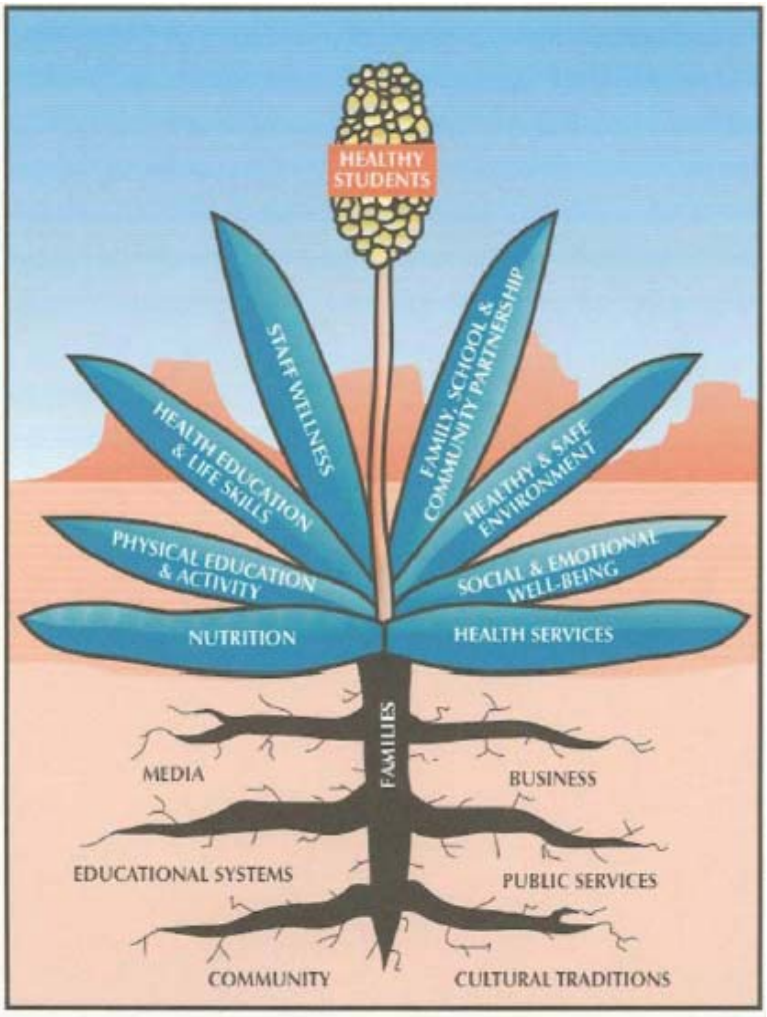


TABLE OF CONTENTS

Food Service Staff Responsibilities

Important Points

Maintaining clean food preparation, serving, and eating areas is essential.

Any air quality or maintenance issues should be reported immediately.

Food service staff should be able to identify the signs of a severe allergic reaction and respond appropriately.

The school nurse is a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Food service staff should maintain a clean area for all food preparation and serving. If maintenance issues are identified they should be reported as soon as possible. Cleanliness is essential to prevent unwanted pests and odors that can contribute to allergy problems.

While food service staff members are busy providing good nutrition for all students, they need to be aware of the potential link between food allergies and asthma. According to the Food Allergy Network, students with both asthma and food allergies are at increase risk for severe allergic reactions. The school nurse can alert food service staff to students with the potential for food allergies.

In addition to knowing how to help a student who is experiencing an asthma episode, food service staff should be prepared to recognize allergy symptoms indicating anaphylaxis and act quickly. Such reactions are potentially life threatening.

To help insure safety, some school cafeterias have chosen to have a designated eating area for students with significant food allergies. Seating in this area should be completely voluntary.

Common Food Allergies

Children with asthma are at a greater risk for severe allergic reactions

Research suggests that children with asthma are at a greater risk for severe allergic reactions to foods. The eight foods that account for 90% of allergic reactions are:

- peanuts
- eggs
- fish
- milk
- wheat
- soy
- tree nuts (walnuts and pecans)
- shellfish.

An awareness of foods most likely to cause severe reactions is important.

Every member of the school staff needs to be aware of students' food allergies and food service staff has a special responsibility to be vigilant.

Every member of the school staff needs to be aware of students' food allergies and food service staff has a special responsibility to be vigilant. Food allergies can occur anywhere, but the school cafeteria is a high-risk area. Additionally, food handlers should use vinyl gloves to avoid any problems with potential latex allergies.

Recognizing the signs and symptoms of severe allergic reactions is essential. These include:

- itching and swelling of the lips, tongue, or lining of the mouth
- itching and/or a sense of tightness in the throat
- shortness of breath and wheezing
- hoarseness and a hacking cough
- hives of an itchy rash
- facial swelling or swelling in the limbs (arms and legs)
- nausea, vomiting, diarrhea, or stomach cramps
- rapid pulse and/or fainting
- anxiety and restlessness.

The school nurse is a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

These symptoms can appear suddenly, advance rapidly, and become life threatening. Immediate action is required. Ask the student who is experiencing these symptoms if he/his is carrying medications to treat allergic symptoms. **The school nurse should be called to administer emergency treatment and assist in determining if calling 911 is warranted.** Any allergic reactions should be reported to the involved student's parents.

Reducing Asthma Triggers

In addition to managing food allergy concerns, food service staff members have an important role in reducing other potential asthma triggers. Important steps in reducing these triggers in the food service area include:

- careful food storage - sealed, locking containers are ideal
- wiping counters and table tops with soap and water
- cleaning all food preparation and cooking areas very well
- sweeping and wet mopping floors
- disposing of food and any waste carefully to eliminate cockroaches and other pests
- being alert to any moisture problems
- avoiding cleaners with heavy odors or perfumes

These steps should be followed on a daily basis to ensure that food preparation areas, serving areas, and eating areas remain clean and to discourage unwanted pests. Frequent inspections should be conducted and policies and procedures need to be evaluated regularly to ensure an asthma friendly school environment.

Maintaining clean food preparation, serving, and eating areas is essential.

Any air quality or maintenance issues should be reported immediately.

Food Service Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
   - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
   - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. COOKING AREA

		Yes	No	N/A
1a.	Determined that local exhaust fans operate properly (note if fans are excessively noisy)	❑	❑	❑
1b.	Checked for odors near cooking, preparation, and eating areas	❑	❑	❑
1c.	Ensured that exhaust fans are used whenever cooking, washing dishes, and cleaning	❑	❑	❑
1d.	Determined that gas appliances function properly	❑	❑	❑
1e.	Verified that gas appliances are vented outdoors	❑	❑	❑
1f.	Ensured there are no combustion gas or natural gas odors, leaks, back-drafting, or headaches when gas appliances are used	❑	❑	❑
1g.	Ensured that kitchen is clean after use	❑	❑	❑
1h.	Determined there are no signs of microbiological growth in the kitchen, including the upper walls and ceiling (for example, mold, slime, and algae)	❑	❑	❑
1i.	Selected biocides registered by EPA (if required), followed the manufacturer's directions for use, and carefully reviewed the method of application	❑	❑	❑
1j.	Verified the kitchen is free of plumbing and ceiling leaks (signs include stains, discoloration, and damp areas)	❑	❑	❑

2. FOOD HANDLING AND STORAGE

2a.	Checked food preparation, cooking, and storage areas for signs of insects and vermin (for example, feces or remains)	❑	❑	❑
2b.	Stored leftovers in well-sealed containers with no traces of food on outside surfaces	❑	❑	❑
2c.	Ensured that food preparation, cooking, and storage practices are sanitary	❑	❑	❑
2d.	Disposed of food scraps properly and removed crumbs	❑	❑	❑
2e.	Wiped counters clean with soap and water or a disinfectant (according to school policy)	❑	❑	❑
2f.	Swept and wet mopped floors	❑	❑	❑

3. WASTE MANAGEMENT

3a.	Selected and placed waste in appropriate containers	❑	❑	❑
3b.	Ensured that containers' lids are securely closed	❑	❑	❑
3c.	Separated food waste and food-contaminated items from other wastes, if possible	❑	❑	❑
3d.	Stored waste containers in a well-ventilated area	❑	❑	❑
3e.	Ensured that dumpsters are properly located (away from air intake vents, operable windows, and food service doors)	❑	❑	❑

DELIVERIES

	Yes	No	N/A
4a. Instructed vendors to avoid idling their engines during deliveries	❑	❑	❑
4b. Posted a sign prohibiting vehicles from idling their engines in receiving areas	❑	❑	❑
4c. Ensured that doors or air barriers are closed between receiving area and kitchen	❑	❑	❑

NOTES

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)

Does student have parent/guardian-approved medication?

YES → Administer medication as directed.

NO

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

- Are the lips, tongue or nail beds turning blue?
- Are the symptoms not improving or getting worse?
- Did breathing difficulty develop rapidly?

NO → Contact responsible school authority & parent/legal guardian.

YES

CALL EMERGENCY MEDICAL SERVICE.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XIII. THE TRANSPORTATION STAFF

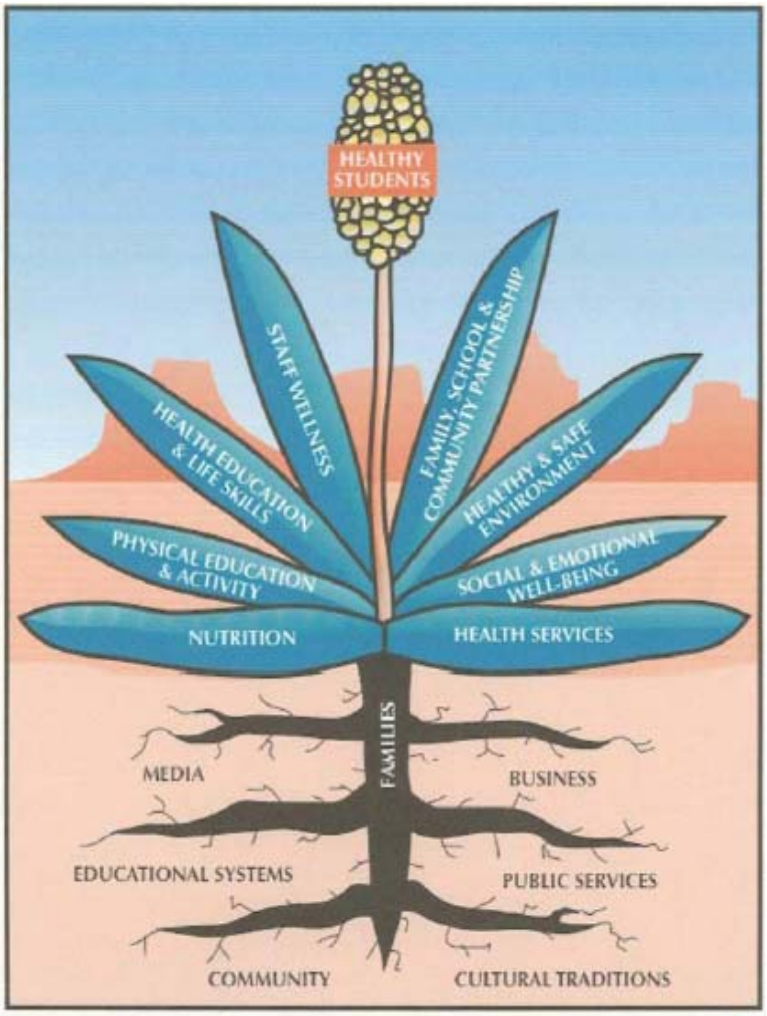


TABLE OF CONTENTS

Important Points

The transportation staff should be trained to identify the signs of breathing difficulties and be able to respond appropriately.

Emergency plans and communication systems should be established.

Transportation staff should not be expected to relay messages regarding health care needs between home and school.

The school nurse is a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Transportation Staff Responsibilities

Bus drivers and the aides who assist them are vital links in helping students with asthma as they are transported to and from school, on field trips, for athletic events, and in connection with any of a variety of school activities. This is true whether a school system employs its own transportation staff or uses the services of a licensed bus company. The Environmental Protection Agency (EPA) estimates that 24 million children ride school buses everyday and spend an average of 1-1½ hours on the bus each week. Like all members of the school staff, members of the transportation staff should be prepared to assist students who have asthma.

Bus drivers and bus aides need to be able to identify students with asthma and know how best to help them manage any problems that might occur. This means that at the beginning of the school year, transportation staff members must talk with the school nurse and obtain a list of the students who might be needing help. Emergency action plans are essential as an asthma episode can potentially occur anywhere and at any time. These plans should be reviewed very carefully with the school nurse annually. Drivers and aides should know how to assist students in using inhalers and taking needed medications. First Aid and CPR training are highly recommended. Emergency contact numbers should be readily available to provide backup assistance for transportation staff.

Transportation staff should not be expected to relay messages regarding health care needs between home and school. Nor should they be expected to transport medications to and from school. Such communications should occur directly between parents and the school health or teaching staff members.

Buses should be kept clean and free of potential asthma triggers.

Idling bus engines should be discouraged and avoided whenever possible.

Allergen Free Buses

Buses need to be kept clean and as allergen free as possible. Floors should be swept and damp mopped regularly and litter on the bus should be kept to a minimum. Reasonable indoor bus temperatures should be maintained and opening and closing windows will need to be considered during heavy pollen seasons. Requests to transport pets on buses should be diplomatically denied. Smoking cannot be allowed.

School bus engines need to be well maintained to avoid irritating exhaust fumes. Idling of bus engines should be avoided whenever possible. Some school districts have chosen to post NO IDLING signs to alert all members of the school community to the respiratory dangers associated with exhaust fumes. Diesel and gas fumes are frequent asthma triggers and should be kept to a minimum. The EPA announced project grants for a Clean School Bus initiative in February 2006, www.epa.gov/cleanschoolbus . Other information and resources are available at www.asthmaregionalcouncil.org/about/BusToolkit.htm .

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)

Does student have parent/guardian-approved medication?

YES → Administer medication as directed.

NO

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

- Are the lips, tongue or nail beds turning blue?
- Are the symptoms not improving or getting worse?
- Did breathing difficulty develop rapidly?

NO → Contact responsible school authority & parent/legal guardian.

YES

CALL EMERGENCY MEDICAL SERVICE.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XIV. THE FAMILY

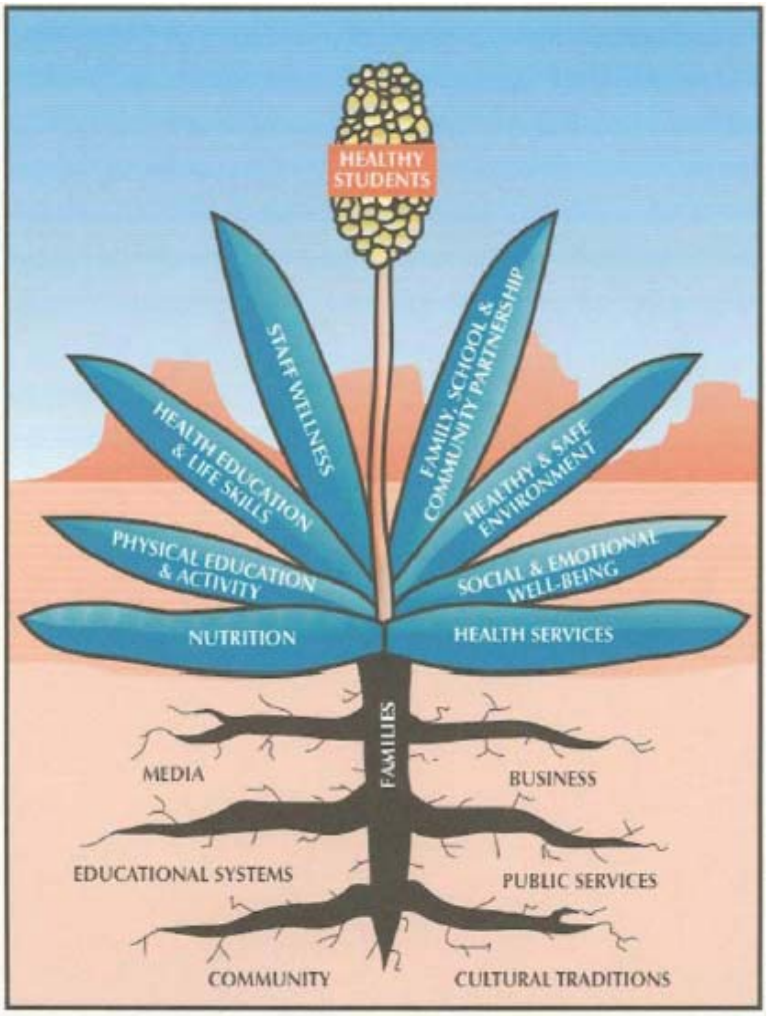


TABLE OF CONTENTS

Family Responsibilities

Important Points

It's essential that families and school staff cooperate and communicate with one another to promote educational success and asthma management safety.

Parents have a responsibility to keep the school informed of their student's condition and needs.

Like school, the home, should maintain good indoor air quality, free of smoke and other potential allergens.

Cooperation and communication between the family of a student with asthma and the school staff are absolutely essential. Working together will help promote the student's educational success and the feeling that school is a safe place where there is help for asthma management.

At the start of the school year a conference should be scheduled in which the student, parents, school nurse, and identified school staff participate. Discussion items to be considered include:

- instructions from the student's health care provider, including any needed medications and/or treatments
- development of an asthma action plan with attention to care needed in case of emergency
- identification of the student's asthma triggers and any special accommodations required (e.g. field trips, physical education activities, food allergies)
- clear definitions of attendance and participation expectations
- a review of when a student should and should not attend school
- establishment of a method for monitoring progress and maintaining communication.

With these plans in place, the student and parents will recognize the staff's interest in providing an asthma friendly school setting. Hopefully, this will also help decrease misunderstandings during the school year.

When staff and families work together the opportunities for two-way learning increase. In the process of defining a student's needs, both the staff members' and parents' understanding of asthma management can be assessed and appropriate education provided. Educational and support resources can be identified. Through a discussion of the steps the school is taking to provide a safe environment for students with asthma, families may gain insight into changes needed in the home environment.

Joint efforts between parents and staff can lead to the development of asthma-related initiatives beneficial to the entire school system. In-service programs, PTA and PTO presentations, asthma support groups, and health fairs are only a few of the potential opportunities to educate the school community and promote the value of an asthma friendly school.

Home Environment

Parents of children with asthma need to be alert to signs of respiratory infections and have a plan for obtaining immediate medical attention.

Children may tend to just "get use" to having breathing problems. Parents have a responsibility to be alert for these problems and seek medical help. Frequent inhaler use, coughing after physical activity, and coughing that interrupts the child's sleep, indicate that asthma is not well controlled and better treatment is needed. Parents of children with asthma need to be alert to signs of respiratory infections and have a plan for obtaining immediate medical attention.

Like school, the home should maintain good indoor air quality, free of smoke and other potential allergens.

The issue of smoking and the dangers associated with second hand smoke need to be addressed, both in the home and school setting. Students with asthma should not smoke and they should not be in an environment where smoking occurs. Children are especially vulnerable to the effects of second hand smoke because they are growing and developing and because they have a higher respiratory rate than adults. Exposure to second hand smoke or the residue smoke leaves can cause asthma in children who have not previously exhibited symptoms. Additional help and information on this topic are available at www.epa.gov/smokefree/healtheffects.html . Resources for counseling and assistance are available locally through a variety of organizations such as the New Mexico Lung Association. School nurses and support staff members can provide additional information about available resources.

The family and the school need to work together to promote student success.

Cooperation and communication between the family of a student with asthma and the school staff are absolutely essential. Working together will help promote the student's educational success and help the family and staff learn from each other.

HOW DO I KNOW IF MY CHILD SHOULD GO TO SCHOOL TODAY?

My child should be allowed to attend school if:

- Peak flow is in the green zone
- Child has a stuffy nose, but no wheezing
- Child has wheezing that goes away after taking medication
- Child is able to perform usual activities without using extra effort to breathe (getting dressed, eating).

My child should not attend school if:

- Peak flow measurement is below 75% of personal best
- Wheezing or coughing continues after treatment
- Child has trouble breathing or is breathing fast
- Child has a temperature over 101 degrees
- Child is too weak or tired to take part in normal activities (getting dressed, eating).

(Adapted from Managing Asthma in Connecticut Schools.)

Should You Be Concerned?

More than eight million children in the United States have a disease called *asthma*. Asthma
is a leading reason that children miss school or end up in the hospital. Asthma makes it hard for
people to breathe. Sometimes people even die from asthma. This disease has no cure yet, but it can be controlled.

Another 40 to 50 million people have allergies. Allergies can also make it hard for people to breathe by causing an asthma attack. An allergy is an unusual reaction to something, like a food or a plant, that is normally harmless. Common signs of allergies are a stuffy or runny nose, itching, or a rash. This section will help you ask the right questions to find out how to make your home a safer, healthier place for people with asthma or allergies.

What Happens During an Asthma Attack?
Asthma flare-ups are called asthma attacks. During an attack, the breathing tubes in your lungs, called *bronchi* and *bronchioles*, get smaller.

During an asthma attack:
• The breathing tubes in your lungs swell up.
• The muscles around these tubes tighten.
• The tubes make large amounts of a thick fluid called mucus.

You cannot catch asthma. It does run in families, though. If someone in your family has it, you or your children may too. The number of asthma cases is growing and more people die from it every year. These deaths do not need to happen.

Warning Signs of an Asthma Attack:
• Tightness in the chest
• Shortness of breath
• Wheezing
• Coughing

People with asthma who learn to spot the early signs of an attack can take medicine right away. This may make the attack less severe. The most important thing to know about asthma is that you can control it. Asthma patients (or their parents) who learn what medicine to take and what
triggers attacks can avoid them most of the time. That means people with asthma can lead normal lives.

If someone is having a severe asthma attack, get him or her to a hospital emergency room right away. Some signs of a severe attack:

- The Person's asthma rescue or inhaler medicine doesn't help within 15 minutes
- The person's lips or fingernails are blue
- The Person had trouble walking or talking due to shortness of breath

Many types of medicine can treat asthma. Keep in mind that no one medicine works best for everyone. You and your doctor have to work together to find the best medicine. Remember, it may take a while to find just the right kinds. Also, you must take the time to find out what sets off an attack.

Asthma Triggers
No one knows what causes asthma. Lots of things set off asthma attacks, though. These things are called *triggers*. Some people have only one or two triggers. Other people have many.

Some triggers are things to which people are often allergic. Common ones are *pollen* (from trees and flowers) and *dander* (skin flakes from cats, dogs, and other pets). Also, some people are allergic to pests such as roaches, rodents, or *dust mites*. Dust mites are tiny insects that you can't see. They live everywhere—in carpets, upholstered furniture, stuffed animals, and bedding.

Cigarette smoke is another common trigger of asthma attacks. Other triggers have nothing to do with allergies—cold weather, exercise, and strong feelings (laughing, crying).

Other Common Asthma Triggers
- Dust
- Mold
- Carbon monoxide
- Cleaning products like furniture polish or dusting sprays
- Personal care products like hair spray or perfume
- Flu, colds

There are two main types of asthma medicine.

One kind you (or your child) take regularly to make the lungs less sensitive to the things that cause asthma attacks. It is important to take this medicine as prescribed, even if you feel okay. It usually takes a couple of weeks to work. The other type is called *rescue medicine*. You take this during an attack to help open up your breathing tubes so you can breathe better.

Some "everyday" asthma medicines are *steroids*. Some people may worry about them because they have heard stories about athletes who use steroids in the wrong way. Asthma steroids are not the same. Side effects of asthma steroids are also rare. Asthma patients usually breathe these medicines right into their lungs, so they only need a small dose.

Allergies
Common signs of allergies include a runny or stuffy nose, coughing, hives, itching, a rash, or puffy eyes. Allergies can be deadly for some people. When sensitive people come in contact with something they're very allergic to, like peanuts, their blood pressure drops, their breathing tubes swell up, and they can die from lack of air. The good news is that allergies can be treated. If you have allergies, it's important to find out what causes them and how to take care of them. A doctor can test you to find out. People with severe allergies may need to carry emergency medicine.

Common Allergens
An *allergen* is something that causes allergy signs, or an *allergic reaction*. Many of the asthma triggers listed on page 12 also cause allergic reactions in people who don't have asthma. There are many other allergens too. Some common ones are listed here. It's important to talk to your doctor if you have had a reaction to any of these:

• **Foods**: milk and dairy products, citrus fruit like oranges and lemons, artificial colors and flavors, nuts, and shellfish like shrimp or clams.

• **Medicines**: penicillin, some heart medicines, and some anti-seizure medicines.

• **Insect stings and bites**: most are caused by yellow jackets, honeybees, paper wasps, hornets, and fire ants. In some people, reactions to stings become more serious as years go by. Eventually, only one sting may kill. Talk to your doctor if you have had a serious reaction to a sting.

• **Contact allergens**: cause reactions when things like plants, cosmetics, jewelry, or latex (a type of rubber) touch the skin. Rashes are common reactions to these allergens.

Look at the questions on the following pages to help you find problems around your home that may make asthma and allergies worse. Pages 14 and 15 will give you ideas about how to keep your family healthy and safe.

Questions to Ask

- Does anyone in your family have asthma or allergies?
- Does someone in your family notice burning eyes, coughing, or sneezing that happens most often at home?
- Does your home have carpet that is not cleaned well or not cleaned often?
- Do you have carpeting, stuffed toys, or fleecy materials in bedrooms?
- How often do you wash sheets, blankets, and other bedding?
- Do you store food in containers or boxes that don't have covers?
- Do you keep pets inside?
- Has it been more than a year since you had your furnace, flues, and chimneys inspected and cleaned?
- Does anyone smoke inside your home?
- Is your home damp or musty?

ACTION STEPS

Pay Attention to Your Asthma and Allergies

Know what triggers your or your children's asthma or allergies. Talk to a doctor or nurse about keeping emergency medicine around if your asthma or allergies are severe. If people you love take asthma or allergy medications, make sure they know when to take it.

Healthy Housekeeping

Clean your home often. Since cleaning puts dust into the air, have someone without asthma or allergies do it. Wear a dust mask if you can't find somebody else to clean. You can buy one at a drugstore.

Keep clutter down. Clutter collects dust and makes it harder to keep a clean home. Store your belongings in plastic or cardboard boxes instead of keeping them in piles or stacks. You can move the boxes to make cleaning easier.

When possible, don't have carpeting or rugs. Hard floors (vinyl, wood, or tile) are much easier to keep dust-free. If you do have rugs or carpet, vacuum often. You may be able to borrow or buy a vacuum with a special HEPA (High Efficiency Particle Air) filter to get rid of dust. Call your local or state health department for more information.

Keep Down Dust Mites

Use zippered plastic mattress and pillow covers beneath sheets and pillowcases. You can buy them at your local department store or through the mail. If the mattress cover is uncomfortable, put a mattress pad over it.

Wash bedding, including blankets, pillow covers, and mattress pads in hot water every week. Temperatures above 130ºF kill dust mites.

Control Other Pests

Roaches and rodents can trigger asthma and allergies. They need food, water, warmth, and shelter to survive. You can control roaches, mice, and other pests by making these things hard to get. (See the chapter on pesticides on page 42 to learn more about how to handle pests.) Here are some tips to keep pests away:

- Store food in tightly sealed containers.
- Clean up crumbs and spills right away.
- Empty your garbage often.
- Wash your dirty dishes right after eating.
- Don't leave out pet food or water overnight.
- Fix plumbing leaks and drips.
- Seal cracks where roaches and other bugs hide or get into your home.

ACTION STEPS, continued

Pets
Furry pets like dogs, cats, and gerbils can cause asthma and allergy attacks because of their saliva and skin flakes. It is best to either not have pets or keep them outside. If you do have pets inside, make sure to keep them out of sleeping areas and off fabric-covered furniture.

Check Your Appliances
Make sure your gas appliances, and fireplace, furnace, or wood-burning stove have yearly checkups to keep down soot (and protect you from the dangers of carbon monoxide. See page 26 of the *Help Yourself to a Health Home,* handout for more information.)

Check the filter on your furnace and air conditioner a couple times each year. Change when needed. Think about buying filters that cost a little more than the most economical ones. They will clean the air in your home better. They trap more dust so you will need to change them more often. You can buy air filters at a hardware store. Check labels and packaging to find out about these products. If you rent, talk to your landlord about these steps.

Smoking
Cigarette, cigar, and pipe smoke causes health problems, especially for people with asthma. It is best to quit smoking (contact the American Lung Association at (800) LUNG-USA for help). Otherwise, smoke outside and away from children. Don't light up in your car because smoke will linger there and affect children.

Mold
When people breathe in mold, it can cause allergies and asthma to act up. Mold needs water to grow. Keep your home dry to control mold. That will also help with roaches and dust mites. See the chapter on mold on page 17 for more information.

FACT: Air cleaners may help in the bedrooms of allergy and asthma patients. Good air cleaners (with HEPA filters) cost about $100 or so. DO NOT use an air cleaner that makes ozone because ozone can cause health problems.

When is Doubt, Check it out!

- Your local county Extension Office
  - look in your telephone book
- Your local or state health department
  - look in your telephone book
- American Lung Association, (800) LUNG-USA
  - www.lungusa.org
- The Soap and Detergent Association, *Cleaning to Control Allergies and Asthma*, (202) 347-2900- ww.cleaning101.com/house
- Healthy Indoor Air for America's Homes (406) 994-3451—www.healthyindoorair.org
- The Allergy & Asthma Network: Mothers of Asthmatics (800) 878-4403- www.aanma.org
- The Food Allergy & Anaphylaxis Network (FAAN) (800) 929-4040 ww.foodallergy.org
- The U.S. Environmental Protection Agency Asthma and Indoor Environments—www.epa.gov/asthma

Adapted from: Help Yourself to a Healthy Home
Entire booklet can be found at http://www.healthyhomespartnership.net/book.html

Resources for Parents and Students

Parents

A Parent's Guide to Asthma: How You Can Help Your child control Asthma at Home, School, and Play by Nancy Sander. A mother's story about managing her daughter's asthma

American Medical Association's Essential Guide to Asthma
Focuses on finding and maintaining an active treatment plan

Ask the Doctor by Vincent Friedewald, MD
Provides asthma information in small paragraphs with questions that help apply information to the reader's life

Asthma: The Complete Guide to Self-Management of Asthma and Allergies for Patients and Their Families by Allan Weinstein, MD
Focuses on understanding asthma and its triggers

Childhood Asthma: What It Is and What You Can Do by Drs. Buchman and Cooper
Covers asthma basics and has a section on explaining asthma to children

Family Guide to Asthma and Allergies: How You and Your Children Can Breathe Easier from the American Lung Association Asthma Advisory Group
Focuses on the family's role in caring for children and what to tell the school

Help Your Child Gain Control over Asthma
CDC and EPA
EPA # 402-F-04-021
Can be ordered in Spanish and English from EPA
Written at an easy to read level for adults

Kids Breathe Free: A Parent's Guide for Treating Children with Asthma by Prichett and Hull Associates, Inc. ages 5-9, simple text with cartoons, for parents to share with children

School Asthma Allergy Information Resource
www.schoolasthma.com
Includes section just for parents

Your Child: Asthma Practical and easy-to-follow Advice by Erika Harvey
Discusses asthma management from babyhood to teens and ways to help children handle their feelings about asthma

Elementary School

The ABC's of Asthma of Asthma by Kim Gosselin
ages 5-7, easy ABC book with basic information about asthma

Asthma Detectives by Carol Shenise from Glaxo Smith Kline
ages 7-11, story for parents to read to children with activity sheets

Brianna Brealthes Easy by Virginia Kroll
Ages 6-9, a story about a young girl who learns she has asthma and how to control it

Sportsercise! by Kim Gosselin

ages 6-9, despite having asthma a boy learns to participate on a sports team

Taking Asthma to School by Kim Gosselin
ages 6-9, by a child with asthma, includes "Asthma Kids Quiz" and tips for teachers

The Lion Who Had Asthma by Jonathan London
ages 5-7, colorful text for young children with asthma

Zoey and the Zones by Shawn R. McCormick
Ages 6-10, story of a car with asthma that learns to manage his symptoms. Excellent source of information. Also addresses consequence of child stopping medications. It also has a companion parent workbook and a website.

Zooallergy by Kim Gosselin
ages 6-9, story of trip to allergist and then to zoo

Middle School

The Babysitter's Club by Ann Martin
ages 11-15, girl rushed to hospital because of an asthma episode while babysitting

Breathe Easy: Young People's Guide to Asthma, 2nd edition by Jonathan Weiss
ages 10-15, advice from a 13 year boy to other young people

Jackie Joyner-Kersee: Champion Athlete
ages 13-17, story of an athlete's career while coping with asthma

Relieve the Squeeze: How to Take Control of Your Asthma by Peggy Strauss
Ages 10-15, basic information with advice to take control by knowing triggers has companion video

Web Sites

Asthma and Allergy Foundation of America
www.aafa.org
Power Breathing – a variety of instructional modalities for teens

Environmental Kids Club
www.epa.gov/kids

Fankids
www.fankids.org
(2 web sites, one for young children and one for teens)

Help Yourself to a Healthy Home
http://www.healthyhomespartnership.net/book.html

Kids Corner
www.schoolasthma.com
Includes: interactive games, downloadable coloring book, how to use an inhaler

National Heart, Lung, and Blood Institute
www.niehs.nih.gov/kids/asthma.htm

Includes: Kids' Pages with dust games and Air: Your World Indoors

National Jewish Center
http://www.nationaljewish.org/

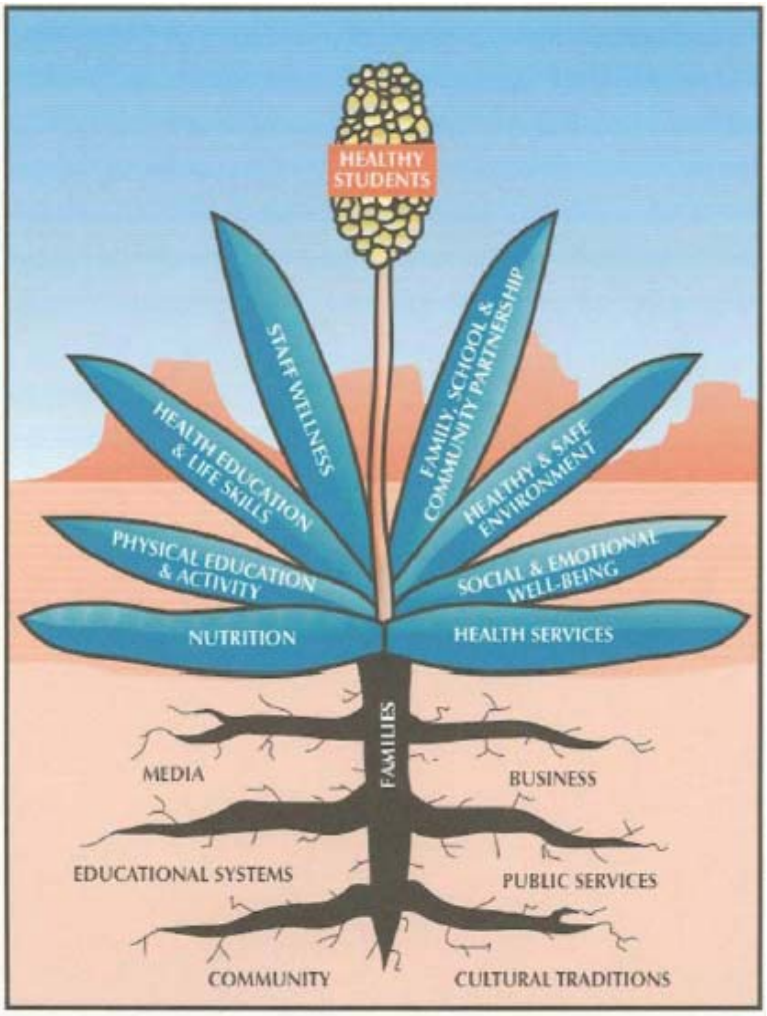
Playtime
www.aanma.org/playtime

Teen's Corner
www.schoolasthma.com
Includes: peak flow meter diary, Asthma Buster's Club, tobacco free information

See General Resources for additional information and resources available in Spanish.

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XV. GENERAL RESOURCES



GENERAL RESOURCES

New Mexico

New Mexico Department of Health Asthma Program
http://nmhealth.org/eheb/asthma.shtml

Breathing Free – An Asthma Plan for New Mexico – March 2009
http://nmhealth.org/eheb/asthma_actionplan.shtml

Asthma Allies
www.asthmaallies.org

American Lung Association of New Mexico
http://www.lungnewmexico.org/

Healthier Schools New Mexico
http://www.healthierschools.org/healthserv.html

New Mexico Public Education Department
http://www.ped.state.nm.us/

New Mexico School Health Manual
www.nmschoolhealthmanual.org.

Project ECHO
http://echo.unm.edu/

University of New Mexico Hospital – Adult Asthma Clinic
http://hospitals.unm.edu/outpt/adult_asthma.shtml

University of New Mexico Hospital – Pediatric Asthma Clinic
http://hospitals.unm.edu/children/pulmonology.shtml

National

*Allergy and Asthma - Mothers of Asthmatics
http://www.aanma.org/

Alliance for Healthy Homes
http://www.afhh.org/ahh/ahh_main.htm

*American Academy of Allergy, Asthma, and Immunology
www.aaaai.org

*American Academy of Pediatrics
www.aap.org

American Academy of Family Physicians – Tars Wars Program
http://www.tarwars.org/online/tarwars/home.html

Asthma and Allergy Foundation of America
www.aafa.org

Asthma Community Network
http://www.asthmacommunitynetwork.org/

Asthma Regional Council of New England
www.asthmaregionalcouncil.org

*Centers for Disease Control and Prevention - National Center for Environmental Health
http://www.cdc.gov/asthma/

*Food Allergy and Anaphylaxis Network
www.foodallergy.org

National Association of School Nurses (NASN)
www.nasn.org

National Environmental Education Foundation
www.neetf.org/Health/asthma.htm

*National Heart, Lung, and Blood Institute - National Asthma Education and Prevention Program
http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html

*National Institute of Environmental Health
http://www.niehs.nih.gov/health/topics/conditions/asthma/index.cfm

*National Institute of Health
http://health.nih.gov/topic/Asthma

*National Jewish Center
http://www.nationaljewish.org/

U.S. Environmental Protection Agency Asthma Information
http://www.epa.gov/asthma/index.html

*Indicates materials available in Spanish