

# SECTION 8

## Resources and Glossary



**R**esources, including Web sites, are mentioned in this guide as suggestions and examples from the many resource materials available. Listings of materials and resources in this guide should not be construed or interpreted as an endorsement by the sponsors or authors of this publication or of any private organization or business listed herein.

# Section 8

## Resources and Glossary

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## DC Programs and Resources

### American Lung Association of the District of Columbia.

Offers Open Air Ways for Schools, Camp Happy Lungs, and other lung health programs. For more information, call (202) 546-5864. [www.aladc.org](http://www.aladc.org)

**Asthma Swim (Project HEALTH DC).** Project HealthDC's Asthma Swim program empowers children with asthma ages 6 to 12 years to reduce their symptoms and advocate for their own health. Volunteers lead program sessions that help participants increase their adherence to their personal asthma management plans and teach them to communicate effectively about their asthma with their doctors, teachers, friends, and families. Volunteers also lead participants in swim workouts; an activity that is known to decrease the frequency and severity of asthma attacks and improve lung capacity as well as children's self-confidence. The program is held at the Turkey Thicket Recreation Center, 1100 Michigan Ave., NE, Washington, DC 20017. To register, call 202-476-5780. [www.projecthealth.org](http://www.projecthealth.org)

### DC Control Asthma Now (DC CAN), Asthma Control Program.

A program of the District of Columbia Department of Health under a cooperative agreement with the Centers for Disease Control and Prevention, DC CAN works with the community to address five areas outlined in DC's Strategic Asthma Plan: surveillance, environmental and occupational health, health education, health services and quality assurance, and policy. In August 2007, DC CAN received a two-year renewal of its CDC funding. For more information or to request the following materials developed by DC CAN, call (202) 442-8113. <http://dchealth.dc.gov/doh/cwp/view,a,1374,q,601366.asp>

- *Asma en nuestra Comunidad* Spanish-language video (15 minutes), produced by Small House Productions, 2005
- *Asthma and the Elderly Video* (17 minutes), produced by WHUT-TV, December 2004
- *Childhood Asthma Video* (11 minutes), produced by WHUT-TV, October 2004
- *Empowered for Success: A Senior's Guide to Asthma Control Brochure*

**DC Healthy Families Insurance Program.** DC Healthy Families provides free health insurance to uninsured children under age 19 and their parents/guardians who meet eligibility criteria. It funded by the District of Columbia and federal government and is administered by the Department of Health. Call 1-888-557-1116 (TDD/TTY 1-877-6-PARENT) for information or pick up an application at the local library, Giant, Safeway, CVS, and Rite Aid. [http://doh.dc.gov/doh/cwp/view,a,1371,q,575879,dohNav\\_GID,1807.asp](http://doh.dc.gov/doh/cwp/view,a,1371,q,575879,dohNav_GID,1807.asp)

**DC Tobacco Free Families Campaign.** DC Tobacco Free Families Campaign, a partnership of the American Cancer Society, the American Lung Association of the District of Columbia, and the DC Department of Health, funded by tobacco settlement funds, is implementing a comprehensive tobacco cessation and prevention program for DC residents. [www.tff.org](http://www.tff.org)

### DC Quitline® at 1-800 QUIT-NOW (TTY 1-800-332-8615).

If you are a DC resident interested in speaking with someone about quitting smoking, or want to receive information to help a friend or family member, call the DC Quitline® at 1-800 QUIT-NOW anytime 24x7. [www.tff.org](http://www.tff.org)

**DC Rx Prescription Drug Discount Card.** The DC Rx Prescription Drug Discount Card can help DC residents save money on prescription medications. The card is free and available to all District residents regardless of age, income or existing health insurance. The card is accepted at over 98% of all District pharmacies. Call the DC Pharmaceutical Resource Center at (202) 481-1430 to receive a card in the mail or visit one of the distribution sites. On the Web, click on "DC Rx Discount Card." [www.doh.dc.gov/doh](http://www.doh.dc.gov/doh)

**DC HealthCheck Program.** The Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT) Program (known as the "HealthCheck Program" in DC) provides free check-ups and treatment to children eligible for Medicaid and/or DC Healthy Families children under age 21. The EPSDT program consists of two mutually supportive, operational components: (1) assuring the availability and accessibility of required health care resources; and (2) helping Medicaid recipients and their parents or guardians effectively use these resources. To learn more about DC's HealthCheck, call (202) 442-5988.

**DC Public Schools (DCPS).** Visit the DCPS Web site for information about student health requirements and download the Student Health Packet, DC Child Health Certificate Assessment Form, and Oral Health Assessment Form, all available in a number of languages. For additional information, contact the DC Department of Health Hotline at (202) 671-5000. [www.k12.dc.us/schools/immunization.htm](http://www.k12.dc.us/schools/immunization.htm)

**DC Schools.** DC.Gov's Education Center is an online gateway connecting you to information, publications, documents, and online services relating to public, private, and parochial education in DC from pre-K to college. <http://educationcenter.dc.gov>

**Dr. Earl and the Gang Present Hip-Hop Better Asthma Control®.** Hip-Hop to Better Asthma Control®, the related compact disk and other health education materials from the Building Educational Alternatives Together for Health (B.E.A.T. for Health) Children's Hip-Hop Health Series integrate Hip-Hop culture (youth popular culture) into health education material and program design. The program materials target children ages 6 and above, and are intended for children, parents, asthma educators, clinicians, teachers, health insurers, Medicaid managed care organizations, and anyone with the need to educate children about asthma. [www.beat-for-health.com](http://www.beat-for-health.com).

**The HSC Foundation Community Services Resource Directory.** This comprehensive online resource, available in English and in Spanish, is designed to help families - especially those who have children and adults with disabilities and chronic illness - find community services throughout the Washington DC metropolitan area. Search on "asthma," "environmental resources" or other key words, or browse the directory in English or Spanish for local health and human service providers. [www.hscpediatriccenter.org](http://www.hscpediatriccenter.org)

**Mid-Atlantic Center for Children's Health and the Environment (MACCHE).** MACCHE is a joint effort between the George Washington University Medical Center and the Children's National Medical Center that provides information and consultation to parents, teachers, physicians and others about children's environmental health. It is a regional Pediatric Environmental Health Specialty Unit funded by the Association of Occupational and Environmental Clinics through a cooperative agreement with the Agency for Toxic Substances and Disease Registry and the U.S. Environmental Protection Agency. Call 202-994-1166 or 1-866-MACCHE1 (622-2431) or go online for fact sheets on mold, lead in the water, and other environmental health issues. [www.health-e-kids.org](http://www.health-e-kids.org)

**National Capital Asthma Coalition (NCAC).** NCAC is a 501(c)(3) nonprofit alliance of more than 70 diverse organizations and 300 individuals that serves as a major resource for asthma education and a model for institutional collaboration in DC. In addition to its *Asthma-Friendly Schools Training and Awards Program* ([www.dcschoolasthma.org](http://www.dcschoolasthma.org)), NCAC conducts a professional asthma management training seminar and an asthma home visiting program. NCAC also spearheaded a collaborative process with the DC Department of Health, DC Public Schools, and the medical community that resulted in the development of the *DC Asthma Action Plan* and the passage of the *Student Access to Treatment Emergency Act of 2007*. [www.dcasthma.org](http://www.dcasthma.org)

**The Student Support Center.** The Student Support Center serves as a one-stop capacity building center for DC Charter Schools. It provides assistance and resources for administrators, staff, teachers parents, and youth advocates. [www.studentsupportcenter.org](http://www.studentsupportcenter.org)

**Rx4DC.org.** Rx4DC.org is a program of the Pharmaceutical Research and Manufacturers of America in partnership with national and local organizations that helps low-income, uninsured District of Columbia residents get free or discounted brand-name medicines. It provides a single point of access to nearly 475 public, private, and local patient assistance programs. Rx4DC also can provide trainings on how to use the Rx4DC program to help patients in need. Call 888-477-2669 for assistance. [www.Rx4DC.org](http://www.Rx4DC.org)

## MANAGING ASTHMA IN SCHOOLS

**Addressing Asthma in School Fact Sheet.** This fact sheet provides information on children with asthma, asthma prevalence data, and a summary of CDC's six strategies for addressing asthma within a coordinated school health program. [www.cdc.gov/HealthyYouth/asthma/pdf/asthma.pdf](http://www.cdc.gov/HealthyYouth/asthma/pdf/asthma.pdf)

**Asthma Fact Sheets.** These fact sheets on asthma in adult and child populations include information on morbidity, healthcare use, mortality, and other summary data. [www.cdc.gov/nchs/fastats/asthma.htm](http://www.cdc.gov/nchs/fastats/asthma.htm)

**Asthma in Schools 101.** This information packet, created by the National School Boards Association's School Health Program, contains facts and articles about best practices, and sample policies related to asthma management within the school system. [www.nsba.org/site/doc\\_schoolhealth\\_abstract.asp?TrackID=6&SID=1&DID=31300&CID=1116&VID=53](http://www.nsba.org/site/doc_schoolhealth_abstract.asp?TrackID=6&SID=1&DID=31300&CID=1116&VID=53)

**Asthma Management: A Resource for Schools.** This publication was compiled by The Illinois Department of Human Services School Health Program to provide basic information about asthma and to provide asthma resources for school health personnel. The unique needs of each individual child with asthma must be evaluated by a physician and an Asthma Action Plan should be developed to address those needs. January 2001. [www.dhs.state.il.us/chp/ofh/SchoolHealth/pdf/Asthma.PDF](http://www.dhs.state.il.us/chp/ofh/SchoolHealth/pdf/Asthma.PDF)

**Basic Facts about Asthma.** This fact sheet contains information on what asthma is, its effects, how asthma is diagnosed, what an asthma attack is, causes of an asthma attack, how asthma is treated, and important asthma triggers. Also available in Spanish. [www.cdc.gov/asthma/faqs.htm](http://www.cdc.gov/asthma/faqs.htm); [www.cdc.gov/asthma/spanish/sp\\_faqs.htm](http://www.cdc.gov/asthma/spanish/sp_faqs.htm)

**Boston Public Schools – Superintendent's Circulars.** The Boston Public Schools Superintendent has issued circulars outlining policies, procedures, and administrative controls for Integrated Pest Management, Green Cleaners (vendors must provide proof that their environmentally friendly cleaning products meet the criteria for Green Seal), Medical Emergencies, Field Trips and Athletic Trips (including medication administration), and Smoking Policy prohibiting tobacco use., among other issue areas. [http://boston.k12.ma.us/dept/bps\\_memo.asp](http://boston.k12.ma.us/dept/bps_memo.asp)

**Children and Asthma in America.** This landmark survey is one of the largest and most comprehensive surveys of knowledge, attitudes, and behavior toward asthma in children in the United States. A survey of a national probability sample of 801 respondents regarding children, four to 18 years of age with current asthma, was conducted by telephone interview February to May 2004. It includes a survey slide set. [www.asthmainamerica.org](http://www.asthmainamerica.org)

### **Fit, Healthy, and Ready to Learn: A School Health Policy Guide. Part III: Policies Related to Asthma, School Health Services, and Healthy Environment.**

This publication of the National Association of State Boards of Education provides suggestions for education decision makers about policies and programs related to asthma and other chronic health conditions. It provides sample policies that states, school districts, and public and private schools can adapt or revise to fit their local needs and governance frameworks. [www.nasbe.org/HealthySchools/fithealthy.html](http://www.nasbe.org/HealthySchools/fithealthy.html)

### **Health in Action: Asthma in the School Community.**

The November/December 2003 issue of the American School Health Association's publication includes articles written by school asthma experts on topics such as growing up with asthma and school policies and plans related to asthma. [www.ashaweb.org/healthinaction.html](http://www.ashaweb.org/healthinaction.html)

### **Healthy School Environments Assessment Tool (HealthySEAT)**

The U.S. Environmental Protection Agency (EPA) has developed a software tool to help school districts evaluate and manage their school facilities for key environmental, safety and health issues. HealthySEAT can be customized and used by district-level staff to conduct voluntary self-assessments of school facilities and to track and manage information on environmental conditions school by school. EPA has included critical elements of all of its regulatory and voluntary programs for schools, as well as web links to more detailed information. [www.epa.gov/schools/healthyseat/index.html](http://www.epa.gov/schools/healthyseat/index.html)

### **Healthy School Environment Resources.**

The U.S. Environmental Protection Agency's gateway to online resources to assist facility managers, school administrators, architects, design engineers, school nurses, parents, teachers, and staff in addressing environmental health issues in schools. Topics include design, construction, and renovation; energy efficiency;

environmental education; facility operations and maintenance; indoor environmental quality; legislation and regulation; outdoor air pollution; portable classrooms; safety/preparedness; waste; waste reduction; and water. <http://cfpub.epa.gov/schools>

**How Asthma-Friendly Is Your School?** This questionnaire and checklist developed by the National Asthma Education and Prevention Program features seven items that can be used by parents, teachers, and school nurses to help pinpoint specific areas that may cause problems for children with asthma. Materials also are available in Spanish. [www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm)

**Knowledge Path: Asthma in Children and Adolescents.** This knowledge path, compiled by the Maternal and Child Health Library at Georgetown University, offers a selection of recent, high-quality resources about asthma in children and adolescents, its management, and its impact on homes, schools, and communities. The path also identifies tools for staying abreast of new developments in asthma care and conducting further research. It is aimed at health professionals, program administrators, policy makers, educators, and families, and will be updated regularly. The path includes Web sites and electronic publications, journal articles, print publications, databases, and online discussion groups and electronic newsletters. [http://mchlibrary.info/KnowledgePaths/kp\\_asthma.html](http://mchlibrary.info/KnowledgePaths/kp_asthma.html)

**Living Well With Asthma: Canadian Asthma Society.** This Canadian-based site provides information for the community and school staff. Includes physical education suggestions, tips for working with kids with asthma and printable tips for managing asthma. <http://www.asthma.ca/adults/community/asthmaatschool.php>

**Managing Asthma: A Guide for Schools.** This easy-to-use booklet was developed by the National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program to provide school personnel with practical ways to help students with asthma. [www.nhlbi.nih.gov/health/prof/lung/asthma/asth\\_sch.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/asth_sch.htm)

**Managing Asthma in Schools – What Have We Learned?** This special issue of the Journal of School Health provides updated information on developing, implementing, and evaluating school-based asthma programs. It features more than 25 research articles, brief reports, and case studies that cover a range of activities, such as asthma education programs for students and staff members, asthma-related health services, and policy changes. [www.cdc.gov/healthyyouth/asthma/JOSH/index.htm](http://www.cdc.gov/healthyyouth/asthma/JOSH/index.htm)

**National Association of Education (NEA) Health Information Network.** The NEA's Health Information Network consolidates information about asthma, environmental health, and other health-related resources for school personnel working with grades K-12. It provides a searchable database that links to educational materials, medical information, Web sites, and other resources useful for working with schools, children, and youth. [www.neahealthinfo.org](http://www.neahealthinfo.org)

**Powerful Practices: A Checklist for School Districts Addressing the Needs of Students with Asthma.** This document, developed by the American Association of School Administrators and partner school districts, helps school administrators identify areas of asthma management their district is already doing well, as well as areas in which they may want to focus more energy. <http://aasa.files.cmsplus.com/PDFs/Focus/AASA%20Powerful%20Practices%20in%20Asthma%20Management.pdf>

**Questions School Leaders Frequently Ask About Asthma.** Produced by the American Association of School Administrators, the document responds to school administrators' comments and requests for information on asthma. [www.aasa.org/focus/content.cfm?ItemNumber=1953](http://www.aasa.org/focus/content.cfm?ItemNumber=1953)

**QuickReport Card – Schools.** Is your school's environment safe for students with asthma and allergies? The new QuickReport Card – Schools from the Asthma and Allergy Foundation of America is a handy resource for health care professionals, parents and school staff. This heavy-duty, 5"x7" card provides a quick and comprehensive check-list to help ensure a healthy school year. Available to download or to order. <http://www.aafa.org/display.cfm?id=4&sub=81&cont=392>

**School Governance and Leadership Issue on Asthma Management.** This publication of the American Association of School Administrators includes articles on childhood asthma, asthma management, school policies and procedures, indoor air quality, and liability and litigation. [www.aasa.org/files/PDFs/Publications/Spring\\_20031.pdf](http://www.aasa.org/files/PDFs/Publications/Spring_20031.pdf)

**School Health Index: A Self-Assessment and Planning Guide.** This tool from the CDC helps local schools understand their strengths and weaknesses and develop an action plan for improving their health policies and programs related to asthma and/or other health topics. [www.cdc.gov/healthyyouth/shi](http://www.cdc.gov/healthyyouth/shi)

**School House: Bretherville, USA.** The Allergy & Asthma Network Mothers of Asthmatics (AANMA) created this site where parents, teachers, and school administrators can find extensive information and tools for keeping kids with asthma and allergies safe at school. [www.aanma.org/schoolhouse](http://www.aanma.org/schoolhouse)

**Schoolhouse in the Red: An Administrator's Guide to Improving America's School Facilities and Environment.** The 2004 edition of Schoolhouse in the Red reviews and compares the condition of school facilities and the costs associated with deteriorating and inadequate buildings to the state of school facilities outlined in the original Schoolhouse in the Red printed in 1992. This updated edition also offers promising practices on getting schools ready for children by addressing the school's facilities and environment. <http://www.aasa.org/focus/content.cfm?ItemNumber=8021>

**Self-Reported Asthma Among High School Students-United States, 2003.** Morbidity and Mortality Weekly Report 2005;54(31):765-767. [www.cdc.gov/mmwr/preview/mmwrhtml/mm5431a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5431a1.htm)

**Strategies for Addressing Asthma Within a Coordinated School Health Program.** This 12-page document offers concrete suggestions for schools and school districts working to improve the health and school attendance of children with asthma. The six strategies identified by the CDC can be effective whether your program is for the entire school district or just one school. [www.cdc.gov/HealthyYouth/asthma/pdf/strategies.pdf](http://www.cdc.gov/HealthyYouth/asthma/pdf/strategies.pdf)

**Tracking Childhood Asthma with School Data in Three States.** This publication from the Association of State and Territorial Health Officials' (ASTHO) Environmental Health program is a case study on using educational data for asthma surveillance. It features asthma surveillance programs that have incorporated school-based data into their work. States included in the case study are Connecticut, Maine, and Massachusetts. <http://www.astho.org/pubs/TrackingChildhoodAsthmawithSchoolDataFeb.2006-final.pdf>

## MANAGING ANAPHYLAXIS IN SCHOOLS

**AAAAI Anaphylaxis Education Tool Kit.** This kit, from the American Academy of Allergy, Asthma and Immunology, contains examples of materials to assist healthcare professionals in training those at risk for anaphylaxis in the community, and their caregivers, to recognize anaphylaxis and treat it promptly. Resources in the kit include: Anaphylaxis = Killer Allergy (laminated information page), What is Anaphylaxis? brochure, Insect Allergy brochure, Food Allergy brochure, Latex Allergy brochure, Anaphylaxis Emergency Action Plan (also can be downloaded), Anaphylaxis Wallet Cards (also can be ordered separately), Allergy chart stickers, Food Allergy & Anaphylaxis Network (FAAN) brochure and DVD, EpiPen trainer and DVD, Twinject trainer and DVD, Anaphylaxis Killer Allergy reprint from JACI (2006), Anaphylaxis NIH FAAN Symposium reprint from JACI (2006). [www.aaaai.org/members/resources/anaphylaxis\\_toolkit](http://www.aaaai.org/members/resources/anaphylaxis_toolkit)

**AAAAI Anaphylaxis Wallet Cards.** Wallet cards developed by the American Academy of Allergy, Asthma and Immunology allow individuals with anaphylaxis and those around them to respond quickly and accurately during an anaphylaxis attack. Can be ordered at: [www.aaaai.org/members/resources/anaphylaxis\\_toolkit](http://www.aaaai.org/members/resources/anaphylaxis_toolkit)

**Administration of Epinephrine for Life-Threatening Allergic Reactions in School Settings.** The authors of this study, published in the November 2005 issue of the Journal of Pediatrics, conclude that anaphylactic reactions in schools, although not frequent, are not uncommon events. Of the 115 administrations of epinephrine reported between September 2001 to August 2003 in Massachusetts schools, 24% of the cases

occurred in individuals not known to have a life-threatening allergy and 19% of the cases occurred outside the school building on the playground, traveling to and from school, or on field trips. The administration of epinephrine most often occurred in the health office by a registered nurse. The average time from onset of symptoms to administration of epinephrine was 10 minutes. In 92% of the cases, the student was transported to a medical facility via the emergency medical system. <http://pediatrics.aappublications.org/cgi/content/full/116/5/1134>

**Anaphylaxis: A Handbook for School Boards.** The number of life-threatening allergies, especially to peanut products, is increasing. Anaphylaxis, the medical term for “allergic shock” or “generalized allergic reaction,” can be rapid and deadly. The Canadian School Boards Association and Health Canada published this comprehensive handbook for school boards to help them prepare for the possibility of an anaphylactic emergency, understand the applicable legislation and case law relating to providing emergency treatment, adapt the school environment for anaphylactic students, obtain valid consents and waivers, provide medical training to educators, and ensure student privacy is respected. [www.safe4kids.ca/content/schools/anaphylaxis\\_eng.pdf](http://www.safe4kids.ca/content/schools/anaphylaxis_eng.pdf)

**Be S.A.F.E.** The American College of Allergy, Asthma & Immunology and the American College of Emergency Physicians launched this joint campaign to increase awareness of anaphylaxis, widely believed to be an under-recognized and under-treated medical emergency. The S.A.F.E. system, developed by an expert panel of allergists and emergency room physicians, is a mnemonic device with four action steps: Seek Support, Allergen Identification and Avoidance, Follow up for Specialty Care, and Epinephrine for Emergencies. Downloadable information includes Facts About Anaphylaxis, Quick Reference Card, and Patient Brochure. [www.acaai.org/Member/Be\\_SAFE\\_Physician\\_Home.htm](http://www.acaai.org/Member/Be_SAFE_Physician_Home.htm)

**FAAN Managing Food Allergies in the Cafeteria: Tips for Food Service Staff.** From the Food Allergy & Anaphylaxis Network. [www.foodallergy.org/school/cafeteria.html](http://www.foodallergy.org/school/cafeteria.html)

**FAAN Field Trips: Tips for Parents and Educators.** From the Food Allergy & Anaphylaxis Network. [www.foodallergy.org/school/fieldtrip.html](http://www.foodallergy.org/school/fieldtrip.html)

**FAAN Food Allergies and School Buses: Finding a Safe Balance.** From the Food Allergy & Anaphylaxis Network. [www.foodallergy.org/school/bus.html](http://www.foodallergy.org/school/bus.html)

**Food Allergies: What You Need to Know.** The U.S. Food and Drug Administration, Center for Food Safety & Applied Nutrition prepared this colorful two-page fact sheet (available in English and Spanish) to help Americans avoid the health risks posed by food allergens. Each year, millions of Americans have allergic reactions to food. Although most food allergies cause relatively mild and minor symptoms, some food allergies can cause severe reactions, and may even be life-threatening. There is no cure for food allergies. Strict avoidance of food allergens – and early recognition and management of allergic reactions to food – are important measures to prevent serious health consequences. <http://www.cfsan.fda.gov/~dms/ffalrgn.html>

**Guidelines for Managing Life-Threatening Food Allergies in Connecticut Schools.** The Connecticut State Department of Education in collaboration with the State Department of Public Health developed this publication to assist Connecticut public school districts and nonpublic schools in effectively managing the health and safety needs of children with life-threatening allergic conditions. It includes an overview; state and federal legislation; district-wide food allergy management plan; individualized health care plans; suggested roles of school personnel; sample policies, forms, letters, and care plans; and additional resources and references. [http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Food\\_Allergies.pdf](http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Food_Allergies.pdf)

**Information for Consumers: Food Allergen Labeling And Consumer Protection Act of 2004 (FALCPA) Questions and Answers.** FALCPA (Title II of Public Law 108-282) is intended to improve food labeling information for the millions of consumers who suffer from food allergies. The Act will be especially helpful to children who must learn to recognize the allergens they must avoid. <http://www.cfsan.fda.gov/~dms/alrgqa.html>

**Managing Life-Threatening Food Allergies in the Schools.** A task force led by the Massachusetts Department of Education developed these guidelines to assist Massachusetts school districts and nonpublic schools to develop and implement policies and comprehensive protocols for the care of students with life-threatening allergic conditions. This resource guide

includes detailed policies and protocols that should be in place in every school to help prevent allergic reaction emergencies and deaths from anaphylaxis, the systematic planning and multi-disciplinary team approach needed prior to school entry by the student with life-threatening food allergies, the school's role in preventing exposure to specific allergens, emergency management should a life-threatening allergic event occur, and the roles of specific staff members in the care of the student with a life-threatening allergic condition. While this document focuses on food allergies, treatment of anaphylaxis (a life-threatening allergic reaction) is the same whether caused by: insect sting; latex; or exercise induced. [www.doe.mass.edu/cnp/allergy.pdf](http://www.doe.mass.edu/cnp/allergy.pdf)

**Self-injectable Epinephrine for First-Aid Management of Anaphylaxis.** This clinical report of the American Academy of Pediatrics, authored by Scott H. Sicherer, MD, F. Estelle R. Simons, MD and the Section on Allergy and Immunology and published in March 2007, focuses on practical issues concerning the administration of self-injectable epinephrine for first-aid treatment of anaphylaxis in the community. It concludes that epinephrine is the medication of choice for first-aid treatment of an episode of anaphylaxis. Moreover, prompt injection of epinephrine is nearly always effective in the treatment of anaphylaxis, and delayed injection of epinephrine is associated with poor outcomes including fatality. The recommended epinephrine dose for anaphylaxis in children, based primarily on anecdotal evidence, is 0.01 mg/kg, up to 0.30 mg. Intramuscular injection of epinephrine into the lateral thigh (vastus lateralis) is the preferred route for therapy in first-aid treatment. Epinephrine autoinjectors are currently available in only 2 fixed doses: 0.15 and 0.30 mg. On the basis of current, albeit limited, data, it seems reasonable to recommend autoinjectors with 0.15 mg of epinephrine for otherwise healthy young children who weigh 10 to 25 kg (22–55 lb) and autoinjectors with 0.30 mg of epinephrine for those who weigh approximately 25 kg (55 lb) or more; however, specific clinical circumstances must be considered in these decisions. This report also describes several quandaries in regard to management, including the selection of dose, indications for prescribing an autoinjector, and decisions regarding when to inject epinephrine. Effective care for individuals at risk of anaphylaxis requires a comprehensive management approach involving families, allergic children, schools, camps, and other youth organizations. Risk reduction entails confirmation of the trigger, discussion of avoidance of the

relevant allergen, a written individualized emergency anaphylaxis action plan, and education of supervising adults with regard to recognition and treatment of anaphylaxis. <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;119/3/638.pdf>

### **School Safety Guidelines for Latex-Allergic Students.**

The nonprofit American Latex Allergy Association developed this 84-page resource manual to educate and assist school personnel as they strive to create a latex-safe learning environment. It includes sample school policies and procedures; sample individualized student health plans; position statements from the National Association of School Nurses and the American Academy of Allergy, Asthma and Immunology; helpful articles about other schools that have banned latex; a template for a balloon ban sign; and physician forms to be completed by the child's allergist and kept on file at the school. <https://secure.latexallergyresources.org/store>

**When Anaphylaxis Looks Like Asthma.** This four-page article from the Allergy & Asthma Network Mothers of Asthmatics highlights how early food allergy symptoms can be mistaken for asthma symptoms and using epinephrine early can save lives. [www.aanma.org/medicalcenter](http://www.aanma.org/medicalcenter)

## **GUIDELINES, POSITION STATEMENTS, AND RESOLUTIONS**

**Anaphylaxis in Schools and Other Child-Care Settings: Position Statement of the American Academy of Allergy, Asthma and Immunology (AAAAI) Board of Directors.** Among AAAAI's recommendations: avoidance of a specific allergen is the cornerstone of management in preventing anaphylaxis; epinephrine is the first drug that should be used in the emergency management of a child having a potentially life-threatening allergic reaction (there are no contraindications to the use of epinephrine for a life-threatening allergic reaction); school personnel should develop a system of identifying children with life-threatening allergies to prevent anaphylactic reactions, and they should also be prepared to deal with those that occur despite precautions; and all individuals receiving emergency epinephrine should immediately be transported to a hospital even if symptoms appear to have resolved. [http://www.aaaai.org/media/resources/academy\\_statements/position\\_statements/ps34.asp](http://www.aaaai.org/media/resources/academy_statements/position_statements/ps34.asp)

### **Emergency Care Plans for Students with Special Health Care Needs.**

It is the position of the National Association of School Nurses (NASN) that students who have special health care needs that place them at greater risk for a medical emergency should have an individualized Emergency Care Plan. NASN also believes that the registered school nurse, the student (if appropriate and he/she is developmentally able), the student's family, and health care providers, should be members of the multidisciplinary team responsible for writing and implementing the ECP. A written Emergency Care Plan, coordinated by the school nurse, ensures a plan of action is in place to maintain the student's health and safety during a life-threatening emergency. [www.nasn.org/Default.aspx?tabid=220](http://www.nasn.org/Default.aspx?tabid=220)

### **Epinephrine Use in Life-Threatening Emergencies.**

It is the position of the National Association of School Nurses that school nurses create and manage the implementation of emergency care plans for the treatment of life-threatening allergies in the school setting. An individual health care plan that includes periodic monitoring and nursing assessment, emergency plans, and evaluation should be written by the school nurse and maintained for every student with prescribed epinephrine. The school nurse should provide training for school staff in the recognition of life-threatening allergic reactions and the appropriate first aid/emergency measures that should be taken as determined by district policy and state law.

[www.nasn.org/Default.aspx?tabid=222](http://www.nasn.org/Default.aspx?tabid=222)

### **Environmental Impact Concerns in the School Setting.**

It is the position of the National Association of School Nurses that addressing and preventing evidence-based potentially toxic environmental exposures in children is an essential element in promoting student health and educational success. School nurses should be included in assessment, planning, implementation, and evaluation phases of programs designed to address environmental impact concerns.

[www.nasn.org/Default.aspx?tabid=293](http://www.nasn.org/Default.aspx?tabid=293)

### **Guidelines for the Diagnosis and Management of Asthma.**

The National Asthma Education and Prevention Program Expert Panel 3 (EPR-3) presents up-to-date recommendations for clinical practice that emphasize the importance of asthma control and introduce new approaches for monitoring asthma. Released in 2007, the updated

recommendations include an expanded section on childhood asthma (with an additional age group), new guidance on medications, new recommendations on patient education in schools and other settings beyond the physician's office, and new advice for controlling environmental factors that can cause asthma symptoms. Written action plans as part of an overall effort to educate patients in self-management also are recommended. [www.nhlbi.nih.gov/guidelines/asthma/index.htm](http://www.nhlbi.nih.gov/guidelines/asthma/index.htm)

### **Improving Childhood Asthma Outcomes in the United States: A Blueprint for Policy Action.**

This RAND Corporation report describes a set of policy recommendations to create and maintain communities in which children with asthma can be swiftly diagnosed, effectively treated, and protected from exposure to harmful environmental factors. Recommendations are as follows: (1) develop and implement primary care performance measures for childhood asthma care; (2) teach children with persistent asthma and their families a specific set of self-management skills; (3) provide case management to high-risk children; (4) extend continuous health care coverage to uninsured children; (5) develop model benefit packages for essential childhood asthma services; (6) educate health care purchasers about asthma benefits; (7) establish public health grants to foster asthma-friendly communities and home environments; (8) provide asthma-friendly schools and school-based asthma programs; (9) launch a national asthma public education campaign; (10) develop a national asthma surveillance system; and (11) develop and implement a national agenda for asthma prevention research. [www.rand.org/publications/MR/MR1330/](http://www.rand.org/publications/MR/MR1330/)

**A Practical Guide to Anaphylaxis.** Published in the October 1, 2003 issue of the American Academy of Family Physicians' *American Family Physician*,™ this article by Angela W. Tang, M.D. discusses the causes, signs, and symptoms of anaphylaxis; emergency management; and management of the patient with a history of anaphylaxis of treatment.

[www.aafp.org/afp/20031001/1325.html](http://www.aafp.org/afp/20031001/1325.html)

**Resolution on Asthma Management at School.** The resolution of the National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program states that schools should adopt policies for managing asthma that encourage the active participation of students in the

self-management of their condition and allow for the most consistent, active participation in all school activities.  
[www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm)

**The Role of School Nurses in Allergy/Anaphylaxis Management.** It is the position of the National Association of School Nurses that schools have a basic duty to care for students, utilizing appropriate resources and personnel. Prevention of allergy symptoms involves coordination and cooperation within the entire school team and should include parents, students, school nurses, and appropriate school personnel. Early recognition of symptoms and prompt interventions of appropriate therapy are vital to survival.  
[www.nasn.org/Default.aspx?tabid=198](http://www.nasn.org/Default.aspx?tabid=198)

**School Guidelines for Managing Students with Food Allergies.** The risk of accidental exposure to foods can be reduced in the school setting if schools work with students, parents, and physicians to minimize risks and provide a safe educational environment for food-allergic students. Developed by American School Food Service Association, National Association of Elementary School Principals, National Association of School Nurses, National School Boards Association, and The Food Allergy & Anaphylaxis Network. [www.foodallergy.org/school/SchoolGuidelines.pdf](http://www.foodallergy.org/school/SchoolGuidelines.pdf)

**Students with Chronic Illnesses: Guidance for Families, Schools and Students.** This guidance document describes practical and low-cost actions schools and families can take to address multiple chronic diseases. It has been endorsed by the National Asthma Education and Prevention Program, the American Diabetes Association, the American School Health Association, the Epilepsy Foundation, the Food Allergy & Anaphylaxis Network, and the National School Boards Association. [www.nhlbi.nih.gov/health/public/lung/asthma/guidfam.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/guidfam.htm)

**Suggested Emergency Protocol for Students with Asthma Symptoms.** This guidance document, developed by the National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program, provides a sample emergency protocol that may be used for students who do not have a personal plan at school. This protocol is intended to be used along with other school asthma management materials.  
[www.nhlbi.nih.gov/health/prof/lung/asthma/sch-emer-protocol.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/sch-emer-protocol.htm)

### **The Use of Asthma Rescue Inhalers in the School**

**Setting.** It is the position of the National Association of School Nurses to support students with asthma who actively participate in the self-management of their condition and in the self-administration of prescribed, inhaled asthma medications [rescue inhalers]. The self-administration of rescue inhalers should be evaluated on a case-by-case basis with parent, physician, student, and school nurse involvement. Written permission from the parent should be accompanied by documentation from the health care provider confirming that the student has the knowledge and skill to safely possess and use a rescue inhaler in the school setting. The student should have on file a written asthma action plan that includes a plan for monitoring rescue inhaler usage, monitoring of symptoms, and evaluation of the student's self-monitoring skills by the school nurse. When administered safely and properly, self-administration of rescue inhalers can be one important step in a student's overall asthma management.  
<http://www.nasn.org/Default.aspx?tabid=202>

### **When Should Students with Asthma or Allergies Carry and Self-Administer Emergency Medications at School?**

This resource, developed by the National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program, is useful in assessing a student's maturity, disease knowledge and management skills, and appropriateness to carry and self-administer prescribed emergency medications while at school according to his/her personal disease management plan. [www.nhlbi.nih.gov/health/prof/lung/asthma/emer\\_medi.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/emer_medi.htm)

## **ACTION PLANS FOR ASTHMA, ALLERGY, AND ANAPHYLAXIS**

**Anaphylaxis Emergency Action Plan.** This tool, developed by the American Academy of Allergy, Asthma and Immunology, can be used by parents and physicians of school-age children to communicate the student's anaphylaxis management plan to school personnel. [http://www.aaaai.org/members/resources/anaphylaxis\\_toolkit/action\\_plan.pdf](http://www.aaaai.org/members/resources/anaphylaxis_toolkit/action_plan.pdf)

**Asthma Action Card.** This tool, developed by the Asthma and Allergy Foundation of America (AAFA), can be used by parents and physicians of school-age children to communicate the student's asthma management plan to school personnel.

It contains information on asthma triggers, daily medication, and emergency directions to be kept on file at their school and other important locations. Also available to download or to order are AAFA's Child Care Asthma/Allergy Action Card, QuickAllergy Cards, and QuickAsthma Cards. <http://www.aafa.org/display.cfm?id=4&sub=81&cont=392>

**DC Asthma Action Plan.** Approved by the DC Department of Health, adapted from the NAEP guidelines by Children's National Medical Center, and coordinated by the National Capital Asthma Coalition, this form can be used by the healthcare provider and parent/guardian to permit the administration of rescue medication by the school nurse and/or authorized school staff and the self-administration of rescue medication by the student. For more information, call (202) 442-5925. Available in English and Spanish at [www.dcasthma.org](http://www.dcasthma.org), [www.doh.dc.gov](http://www.doh.dc.gov), and [www.k12.dc.us](http://www.k12.dc.us)

**Food Allergy Action Plan.** This Food Allergy Action Plan is available from the Food Allergy & Anaphylaxis Network. [www.foodallergy.org/actionplan.pdf](http://www.foodallergy.org/actionplan.pdf)  
(Spanish: [www.foodallergy.org/spanishaction.pdf](http://www.foodallergy.org/spanishaction.pdf))

## ASTHMA AND ANAPHYLAXIS TOOL KITS

**Allies Against Asthma Resource Bank.** This centralized database enables the sharing of information about resources, tools, and materials for coalitions and community programs addressing asthma. It includes educational materials, resources for implementing asthma intervention programs, evaluation/survey instruments to measure asthma-related activities or outcomes, information about community coalitions, and tools to evaluate asthma educational materials. The site is supported by the Robert Wood Johnson Foundation with direction and technical assistance provided by the School of Public Health at the University of Michigan. <http://aaa.sph.umich.edu/index.jsp>

**Asthma-Friendly Schools Toolkit.** This toolkit was produced by the American Lung Association and includes background information and specific materials to assist coalitions and community organizations to work with schools to create an environment that is supportive of students, faculty, and staff with asthma. Sample materials at the end of each section and an asthma-friendly schools case management database are included. [www.lungusa.org/afsi](http://www.lungusa.org/afsi)

**Asthma Initiative of Michigan (AIM).** AIM's new health information kits titled *Never Judge a Book by Its Cover*, and *Other Important Lessons About Asthma* are tailored to specific school staff and outline actions principals, administrative assistants, teachers, and custodians can take to help kids with asthma at school, including how to respond to an asthma emergency. Links to sites on work-related asthma, asthma and schools, and reasonable accommodations law are included. [http://getastmahelp.com/intro\\_schools.asp](http://getastmahelp.com/intro_schools.asp)

**Asthma Management in Educational Settings (AMES).** AMES is an educational guide developed by members of the Asthma Management in the Schools Task Force, under the direction of the Washington Asthma Initiative through the American Lung Association of Washington. It is divided into four sections: Schools, Clinical Tools, Educational Tools, and Resource Links. The guide offers both generic information of interest to all and role-specific information. The Schools section contains a manual for school nurses and a resource section to provide information for students, parents and school personnel and to collect and disseminate student asthma-related information. This guide also will be helpful for all school personnel. The Clinical Tools section houses the state guidelines for clinical care of asthma as well as recommended asthma management plans, and other recommended national educational materials. The Educational Tools section provides resources for asthma education in the form of PowerPoint presentations, MP3 videos, quizzes, and classroom or health fair activities. [www.alaw.org/asthma/ames](http://www.alaw.org/asthma/ames)

**FAAN's School Food Allergy Program.** The Food Allergy & Anaphylaxis Network's *School Food Allergy Program* offers a comprehensive, multimedia program that includes a video, an EpiPen® trainer, Twinject® trainer, a poster, and a binder filled with more than 100 pages of information and standardized forms. Used by thousands of schools to date, the *School Food Allergy Program* has been endorsed and/or supported by the Anaphylaxis Committee of the American Academy of Allergy Asthma and Immunology, the National Association of School Nurses, and the Executive Committee of the Section on Allergy and Immunology of the American Academy of Pediatrics. Request a free kit for your school. <http://www.foodallergy.org/school.html>

**Guidelines for the Management of Asthma in California Schools: A Comprehensive Resource for School Health and Other Personnel to Address Asthma in the School Setting.** This guide, available online, includes health care procedures and sample forms. [www.caasthma.org/pdf/dhsASTHMAguidelinesFINAL.pdf](http://www.caasthma.org/pdf/dhsASTHMAguidelinesFINAL.pdf).

**Managing Asthma in Connecticut Schools.** The Connecticut Department of Health published this state school asthma manual with an emphasis on coordinated school health. This easy-to-read manual not only describes the components of a coordinated school health program but also has sections for school administration, medical advisors, school nurses, all school staff, and family. [www.dph.state.ct.us/bch/new\\_asthma/asthma\\_schl\\_manual\\_web.pdf](http://www.dph.state.ct.us/bch/new_asthma/asthma_schl_manual_web.pdf)

**Managing Asthma in Minnesota Schools.** This asthma manual, produced by the Minnesota State Health Department, is divided into sections for different audiences such as teachers, secretaries, health staff, administrators, and many more. There are also sections on training, asthma basics, and resources. [www.health.state.mn.us/divs/hpcd/cdee/asthma/documents/schoolmanual.pdf](http://www.health.state.mn.us/divs/hpcd/cdee/asthma/documents/schoolmanual.pdf)

**Missouri School Asthma Manual (2005).** This easy-to-use asthma manual and video tutorials, including an excellent 17-minute *School Staff In-Service Video*, were developed by the Missouri Department of Health and Human Services. [www.dhss.mo.gov/asthma/Publications.html](http://www.dhss.mo.gov/asthma/Publications.html)

**PACNJ Asthma Friendly School Award.** The Pediatric/Adult Asthma Coalition of New Jersey (PACNJ) publicly recognizes asthma-friendly schools that have met its six criteria for success – nebulizer in every school, school nurse asthma training and on-line quiz, faculty asthma training, EPA’s Indoor Air Quality Tools for Schools training, and No-Idling Pledge. PACNJ’s School Task Force provides additional materials. [www.pacnj.org](http://www.pacnj.org)

## EMERGENCY PREPAREDNESS

**District of Columbia Public Schools Influenza Pandemic Plan.** The purpose of this plan is to provide policy direction and procedures that DC Public Schools (DCPS) will

use in the event of an influenza pandemic. The plan was modeled after the Centers for Disease Control and Prevention influenza pandemic recommendations for local school districts. The plan adopts the basic commands, system of security, surveillance, and disease management that is covered in the DCPS Emergency Response Plan, the District of Columbia Department of Health Pandemic Influenza Plan and the District of Columbia Emergency Management Agency Response Plan. The plan also provides standard operational procedures that will be used during any pandemic alert level that has been identified by DOH and the World Health Organization. [www.k12.dc.us/dcps/frontpagepdfs/health/Pandemic%20Plan/REV41Fin1%20\\_4\\_.pdf](http://www.k12.dc.us/dcps/frontpagepdfs/health/Pandemic%20Plan/REV41Fin1%20_4_.pdf)

**Emergency Guidelines for Schools (EGS).** EGS includes guidelines for helping an ill or injured student when the school nurse is not available. Colorful flowcharts are included for a number of emergency conditions from allergy and asthma to unconsciousness and vomiting. EGS also includes recommendations for first aid equipment and supplies for schools. The Ohio Department of Health, School and Adolescent Health, in collaboration with the Ohio Department of Public Safety, Emergency Medical Services for Children program, and the Emergency Care Committee of the Ohio Chapter, American Academy of Pediatrics released the third edition of EGS in February 2007. Maine, North Dakota, and Oklahoma each have adopted this guide for their own state. [www.schoolhealth.org/content/Emergency%20Guidelines%20for%20Schools%202-2007.pdf](http://www.schoolhealth.org/content/Emergency%20Guidelines%20for%20Schools%202-2007.pdf)

**Emergency Response and Crisis Management Technical Assistance Center.** This U.S. Department of Education Web site provides access to tools to help school districts develop comprehensive plans for any emergency or crisis, including natural disasters, violent incidents, and terrorist acts. [www.ercm.org](http://www.ercm.org)

**First Aid, Cardiopulmonary Resuscitation (CPR), and Automated External Defibrillator (AED) Courses.** Find local resources to train school staff and middle and high school students on techniques for AED devices, cardiopulmonary resuscitation, and first aid through your school nurse and through local chapters of the American Heart Association, American Red Cross, and other programs.

**Health, Mental Health and Safety Guidelines for Schools.** This online guide offered by the American Academy of Pediatrics was developed in collaboration with the National Association of School Nurses and more than 30 national organizations. It covers a range of issues, such as health, safety, and physical education; physical environment and transportation; nutrition and food services; and family and community involvement. Look for “allergy” and “asthma” in the Subject Index. [www.nationalguidelines.org](http://www.nationalguidelines.org)

**Managing Students with Food Allergy During a Shelter-In-Place Emergency.** The Food Allergy & Anaphylaxis Network offers suggestions to those planning for emergency situations to ensure the safety of all food-allergic children during the event of a lockdown situation. [www.foodallergy.org/school/EmergencyLockdownGuidelin.pdf](http://www.foodallergy.org/school/EmergencyLockdownGuidelin.pdf)

**PediatricAsthma.org.** This Web site from The Robert Wood Johnson Foundation details the work of 14 asthma research teams across the country, including two from DC – IMPACT DC and the National Capital Asthma Coalition, features successful interventions, and discusses how individual communities, emergency departments and health care systems have put theory into practice. [www.pediatricasthma.org](http://www.pediatricasthma.org)

**Response to Cardiac Arrest and Selected Life-Threatening Medical Emergencies: The Medical Emergency Response Plan for Schools: A Statement for Healthcare Providers, Policymakers, School Administrators, and Community Leaders.** The goal of the Medical Emergency Response Plan for Schools initiative is to encourage every school to develop a program that reduces the incidence of life-threatening emergencies and maximizes the chances of intact survival from an emergency. The medical emergency response plan includes (1) creation of an effective and efficient campus-wide communication system; (2) coordination, practice, and evaluation of a response plan with the school nurse and physician, athletic trainer, and local EMS agency; (3) risk reduction; (4) training in and equipment for cardiopulmonary resuscitation (CPR) and first aid for the school nurse, athletic trainers, and teachers and CPR training for students; and (5) in schools with a documented need, establishment of an automated external defibrillator (AED) program. This statement has been endorsed by the numerous professional organizations such as the

American Heart Association, American Academy of Pediatrics, American College of Emergency Physicians, American National Red Cross, National Association of School Nurses, and National Association of State EMS Directors. This statement was also reviewed by the CDC’s Division of School and Adolescent Health. [www.nasn.org/Portals/0/statements/jointstatementcardiac.pdf](http://www.nasn.org/Portals/0/statements/jointstatementcardiac.pdf) and <http://aappolicy.aapplications.org/cgi/reprint/pediatrics;113/1/155.pdf>

## SCHOOL NURSES AND HEALTH STAFF

**Inhaled Medication and Devices CD ROM.** Are your patients using their aerosol inhalers properly? Are all the choices and methods confusing to them? This interactive CD-ROM from the American College of Chest Physicians (ACCP) describes and demonstrates the proper techniques with professionally narrated videos and printable text. Includes device usage, cleaning, daily diaries, and peak flow management. Easy to navigate to view only the portions you need. A great learning or review tool for nurses and physicians too. Order from the ACCP Store. [www.chest.net](http://www.chest.net)

**Is the Asthma Action Plan Working? A Tool for School Nurse Assessment.** This brief assessment tool, developed by the National Heart, Lung, and Blood Association’s National Asthma Education and Prevention Program, offers guidance to school nurses in determining how well an asthma action plan is working for a student. It includes information about good asthma control and a checklist of assessment items and can also be used by asthma educators, primary care providers, and asthma specialists. [www.nhlbi.nih.gov/health/prof/lung/asthma/asth\\_act\\_plan\\_frm.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/asth_act_plan_frm.htm)

**Report on the Results of the Asthma Awareness Survey.** According to a national sample of members surveyed from the National Association of School Nurses, asthma is more disruptive of school routines than any other chronic condition, has a significant impact on absenteeism and many school staff may lack awareness of the causes of an asthma attack. [http://www.nasn.org/Portals/0/resources/asthma\\_survey.pdf](http://www.nasn.org/Portals/0/resources/asthma_survey.pdf)

**School Nurse Asthma Management Program.** A continuing asthma management and education training program for school nurses offered by the National Association of School Nurses. [www.nasn.org](http://www.nasn.org)

**School Health Nursing Services Role in Health Care: Asthma Management in the School Setting.** This issue brief from the National Association of School Nurses describes the important role school nurses play. The school nurse develops and implements, in coordination with local providers and the coordinated school health team members, the child's asthma management plan; establishes and monitors compliance with school policy related to the management of children at school and during school-related activities; develops protocols for the care of children with acute respiratory distress at school; provides or supervises proper medication administration; supports education of the child in self-management; monitors the child's condition; advocates for the child's inclusion in school-related activities; and works with school staff to assure that accommodations are in place for the child's well-being. [www.nasn.org/Portals/0/briefs/2002briefasthma.pdf](http://www.nasn.org/Portals/0/briefs/2002briefasthma.pdf)

**School Nurse Toolkit.** This toolkit, developed by the American Academy of Allergy, Asthma, and Immunology, is designed to help school nurses educate parents, teachers, school personnel, and students about allergies and asthma. The kit is divided into three sections: Education, PowerPoint Presentations, and Handouts. [www.aaaai.org/members/allied\\_health/tool\\_kit/](http://www.aaaai.org/members/allied_health/tool_kit/)

**SchoolNurse.com.** This Web site posts articles from past issues of the monthly subscription newsletter *School Health Alert*. Publications of interest to school nurses also can be purchased from this Web site, including *Clinical Guidelines for School Nurses*, *Individualized Healthcare Plans for the School Nurse*, and *Legal Issues in School Health Services*. [www.schoolnurse.com](http://www.schoolnurse.com)

## PROFESSIONAL TRAINING

**AAFA Asthma Management and Education® Program.** Primarily for registered nurses, nurse practitioners and respiratory therapists, this continuing education program from the Allergy and Asthma Foundation of America provides the latest techniques in asthma care and current and reliable patient education information and materials. Contact Sonia D. Landry, MPH at 202-466-7643, x 227 or at [lasonia@aafa.org](mailto:lasonia@aafa.org)

**An Asthma Speaker's Kit for Healthcare Professionals.** This PowerPoint presentation (also available in Spanish) is divided into seven parts: introduction, epidemiology, risk factors,

prevention, clinical management, managing asthma, and the public health response. A resource section also is included. [www.cdc.gov/asthma/speakit/default.htm](http://www.cdc.gov/asthma/speakit/default.htm)

**Head Start Caring for Children with Chronic Conditions: Training Guides for the Head Start Learning Community.** This publication, also available online, includes three modules: Module 1: Understanding Chronic Conditions, Module 2: Is This Family Centered?, and Module 3: Putting It All Together: Caring for Children with Asthma. [www.headstartinfo.org/publications/children\\_cc/ccccont.htm](http://www.headstartinfo.org/publications/children_cc/ccccont.htm)

**National Asthma Educator Certification Board (NAECB).** NAECB provides information to those involved in asthma education and interested in becoming an Asthma Educator-Certified. An asthma educator is an expert in counseling individuals with asthma and their families on how to manage asthma and minimize its impact on their quality of life. [www.naecb.org](http://www.naecb.org)

**National Asthma Training Curriculum (NATC).** The Centers for Disease Control and Prevention produced this CD-ROM as an off-the-shelf resource guide about asthma for the public health workforce. NATC provides a basic overview of asthma outlined in the following six modules: Pathophysiology and Diagnosis, Asthma Management, Epidemiology, Asthma Surveillance, Asthma Education for the Patient, Provider and the Public, and Administration of Asthma within Public Health. Order the CD-ROM from the Public Health Foundation. <http://bookstore.phf.org>

**The National Respiratory Training Center (NRTC).** NRTC is an independent, non-profit educational organization committed to improving the health of patients with respiratory and allergic disease by enhancing the knowledge and skills of the health professionals who care for them. Courses are offered in various locations around the country and can be arranged specifically for any group of 20 health professionals. [www.nrtc-usa.org](http://www.nrtc-usa.org)

**School Asthma Education Slide Sets.** The National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program provides two slide sets. The first set presents background information about the growing problem of asthma

in the United States and what school staff should know about helping students to manage their asthma, including triggers and warning signs of asthma episodes (attacks). The second set outlines five goals and action steps that are important for successful asthma management in school settings. [http://hp2010.nhlbihin.net/naepp\\_slds/menu.htm](http://hp2010.nhlbihin.net/naepp_slds/menu.htm)

## EDUCATING STUDENTS AND FAMILIES

### **A+ LIFE® (Asthma Learning Is For Everyone®).**

This family centered asthma education program, developed by the National Capital Asthma Coalition; DC's four Medicaid managed care organizations (AMERIGROUP District of Columbia, DC Chartered Health Plan, Health Right, Inc., and Health Services for Children with Special Needs); the National Capital Area Society for Public Health Education; and the National Children's Museum. Includes fun activities that can be conducted as a workshop or separately at parent-teacher nights, school health fairs, and other gatherings. [www.dcasthma.org](http://www.dcasthma.org)

**Asthma Awareness Curriculum.** This curriculum, developed by the National Asthma Education and Prevention Program, is for the elementary classroom (grades K-3 and 4-6) and includes not only objectives and lesson plans but also resources, activity sheets, and pre/post tests. [www.nhlbi.nih.gov/health/prof/lung/asthma/school/index.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/school/index.htm)

**Asthma Camp Toolkit.** The Consortium on Children's Asthma Camps' Asthma Camp Tool Kit includes curricula, PowerPoint slides, and activities for parents and for children that also can be utilized in school settings. [www.asthmacamps.org](http://www.asthmacamps.org)

**Asthma Moms.** This New York state nonprofit organization offers an extensive list of resources and links to asthma-related Web site information. [www.asthmamoms.com](http://www.asthmamoms.com)

**Asthma Tutorial for Children and Families.** The University of Virginia's Children's Medical Center offers this interactive tutorial, including basic information about asthma, its symptoms, and its treatment as well as audio of breathing sounds and children describing how they feel during an asthma attack. [www.healthsystem.virginia.edu/internet/pediatrics/patients/Tutorials](http://www.healthsystem.virginia.edu/internet/pediatrics/patients/Tutorials)

**Celebra la Ciencia.** The Self Reliance Foundation created Celebra la Ciencia (Celebrate Science) to increase Hispanic family participation in science and health education programs and raise awareness about educational and career opportunities related to science, technology and biomedical research. Celebra la Ciencia establishes working relationships and collaborations between local museums, community organizations, businesses, schools, colleges and universities, and the media in sites around the country, including Washington, DC. [www.celebralaciencia.org](http://www.celebralaciencia.org)

### **Educational Guide on Lung Health for Elementary School Students.**

Developed by The Chest Foundation for teachers, school nurses, health professionals, and other adults working with children in grades 3 through 6, the *Educational Guide* provides lessons, handouts, activities, and resources to educate children about asthma and tobacco prevention. Lessons are designed for half-hour or hour-long sessions, depending on the activities used. They can easily be incorporated into health, science or social science classes, or used in after-school activities. The asthma lessons help students develop a basic understanding of the lungs and asthma and how they can support classmates who have asthma. The tobacco prevention units show students the effects of tobacco use on lungs and teach them ways to resist smoking. The *Educational Guide* is available online in English and Spanish. <http://www.chestfoundation.org/tobaccoPrevention/lungHealth.php>

**Environmental Kids Club.** The Kids Club sponsored by the U.S. Environmental Protection Agency is open to kids in grades PreK-4 and an entire class can join to complete environmental projects and receive recognition. [www.epa.gov/kids](http://www.epa.gov/kids)

**Healthfinder.** The Healthfinder Web site, maintained by the U.S. Department of Health and Human Services, is a comprehensive collection of links to Web sites and organizations on a wide variety of health related topics. Search on "asthma," "anaphylaxis," or any other health-related term to get a comprehensive listing of resources. [www.healthfinder.gov](http://www.healthfinder.gov)

**Help Your Child Gain Control Over Asthma.** This easy-to-read guide for parents of children with asthma (also available in Spanish) provides parents and caregivers of children with asthma the information they need to improve their children's quality of life. [www.epa.gov/asthma/pdfs/ll\\_asthma\\_brochure.pdf](http://www.epa.gov/asthma/pdfs/ll_asthma_brochure.pdf)

**Hooray for Health!** PBS' Hooray for Health! Is an early childhood-level health curriculum guide for teachers, after-school care providers, and school nurses that includes a unit on asthma. Family activity sheets are available in English, Spanish, Chinese, Tagalog, and Vietnamese. <http://pbskids.org/arthur/parentsteachers/lesson/health>

**Implementation Guide, Quest for the Code: An Adventure Game about Managing Asthma for Children.** The implementation guide helps school nurses, health educators, teachers, and others use the STARBRIGHT Foundation's asthma CD-ROM game Quest for the Code as part of a coordinated school health program. The guide contains helpful strategies on using the game to educate students one-on-one about their own asthma, teach asthma management skills to a group of students or a class, integrate the game into existing classes, and educate parents about their child's asthma. [www.starlight.org/schoolasthma](http://www.starlight.org/schoolasthma)

**Kids Health in the Classroom: Health Problems Series (Asthma).** KidsHealth in the Classroom from The Nemours Foundation offers free health curriculum materials for all grades and subject areas. Each teacher's guide includes discussion questions, activities, and reproducible handouts and quizzes - all aligned to recently updated national health education standards. [www.kidshealth.org/classroom](http://www.kidshealth.org/classroom)

**Meeting-in-a-Box Presentation Series Box #4: Asthma Management at School.** From the Asthma and Allergy Foundation of America, Box #4 includes the basics from the first 3 boxes plus how to identify asthma emergencies at school, exercise-induced asthma, and how to form a school management team. Each English kit has everything you need for a 1-hour presentation (2 hours for Spanish). Kits include: over 50 colorful slides; presenter's guide and script; meeting coordinator's guide; reproducible handouts; sample peak flow meter and spacer; meeting sign-in sheet; meeting evaluation form; and information about AAFA. (Also in the English kits: CD-ROM with electronic files of all materials plus a PowerPoint document with recently updated slides, script and handouts.). Click on "Education" then "Programs" then "Adult Programs." [www.aafa.org](http://www.aafa.org)

**National Institute of Environmental Health Sciences (NIEHS).** NIEHS has sponsored the development of a wide variety of educational materials for students and teachers at every grade level. Many of the materials on topics such as environmental health hazards and risk management are aligned with state and national science and health education standards. [www.niehs.nih.gov/health/scied](http://www.niehs.nih.gov/health/scied)

**Open Airways For Schools® (OAS) (grades 3-5).** The American Lung Association's OAS is an asthma management program for schoolchildren aged 8-11 who have been diagnosed with asthma. The OAS classroom kits contain easy-to-use teaching materials including posters and handouts. Each lesson includes materials for the children to take home to their parents. Curriculum materials are available in English and Spanish. Contact your local American Lung Association Chapter. [www.lungusa.org](http://www.lungusa.org)

**OAS+ Comprehensive School-Based Asthma Program (grades 2-5).** A program of the University of Michigan Center for Managing Chronic Disease, developed with support from the National Heart, Lung and Blood Institute, the Comprehensive School-Based Asthma Program (OAS+) was designed to improve health outcomes for children with asthma including asthma symptoms, school grades and school absences. The intervention includes six weekly lessons of Open Airways for Schools, a 3-lesson awareness curriculum called Environmental Detectives for all students in grades 2-5, a school environmental action component, an outreach campaign for parents and community, and efforts to reach community physicians. The set of materials includes all of the information needed to implement the program. [http://www.asthma.umich.edu/Products\\_and\\_Resources/OAS.html](http://www.asthma.umich.edu/Products_and_Resources/OAS.html)

**PBS Teacher Source.** A lesson plan on environmental health allows high school students to act as "medical scene investigators." Asthma is among the medical conditions revealed in the program videos. [www.pbs.org/pov/pov2002/themsmithfamily/classroom.html](http://www.pbs.org/pov/pov2002/themsmithfamily/classroom.html)

**Power Breathing™ Program.** The Allergy and Asthma Foundation of America's interactive program to teach adolescents about asthma. It is the only national asthma education program designed for and pre-tested with teens. Teaches the basics of asthma and helps teens learn skills to manage asthma in social

situations, in school and at work. The full Power Breathing kit includes everything needed to present the program in either three sessions (90 minutes each) or in six sessions (45 minutes each) suitable for school settings. Kit includes: facilitator manual; implementation guide; board game; three videos; reproducible handouts; magnetic clips; “I’ve Got the Power!” buttons; and tote bag. [www.aafa.org](http://www.aafa.org)

**SchoolAsthmaAllergy.com.** SchoolAsthmaAllergy.com from the Schering-Plough Corporation provides links to useful tools and information to empower all of those caring for school-aged children with asthma and allergies. [www.schoolasthmaallergy.com](http://www.schoolasthmaallergy.com)

**SNAP: The School Network for Absenteeism Prevention.** Coordinated by the Centers for Disease Control and Prevention and The Soap and Detergent Association, SNAP is a hands-on initiative for middle schools designed to improve health by making hand cleaning an integral part of the school day. SNAP is designed to get the entire school community talking about clean hands by providing tools to create a community wide project for incorporating hand hygiene into multiple subject areas and activities. Download or order a free SNAP Toolkit which includes activities based on National Education Standards. [www.itsasnap.org](http://www.itsasnap.org)

**Tar Wars.** The American Academy of Family Physicians’ Tar Wars is a tobacco-free education program for fourth- and fifth-grade students. The program is designed to teach students about the short-term, image-based consequences of tobacco use, the cost associated with using tobacco products, and the advertising techniques used by the tobacco industry to market their products to youth. A follow-up poster contest is conducted at the school, state, and national level to reinforce the Tar Wars message. [www.tarwars.org](http://www.tarwars.org)

## ENVIRONMENTAL MANAGEMENT

**Asthma and the Environment: A Strategy to Protect Children.** This document, prepared by the Presidential Task Force on Environmental Health and Safety Risks to Children, describes environmental factors associated with the onset of asthma and triggers of asthma attacks. Four recommendations for federal action to address childhood asthma are presented. <http://aspe.hhs.gov/sp/asthma/appxd.pdf>

**Asthma and Outdoor Air Pollution.** This fact sheet provides information for people with asthma on understanding and using outdoor air quality warnings. [www.epa.gov/airnow/health-prof/Asthma\\_Flyer\\_Final.pdf](http://www.epa.gov/airnow/health-prof/Asthma_Flyer_Final.pdf)

**California School Integrated Pest Management Program.** California’s Department of Pesticide Regulation maintains a Web site with a variety of documents, Web links, and other resources related to integrated pest management in schools. [www.schoolipm.info](http://www.schoolipm.info)

**Clean School Bus USA.** The goal of the U.S. Environmental Protection Agency’s Clean School Bus USA is to reduce both children’s exposure to diesel exhaust and the amount of air pollution created by diesel school buses. [www.epa.gov/cleanschoolbus](http://www.epa.gov/cleanschoolbus)

**Clearing the Air: Asthma and Indoor Air Exposure.** This Institute of Medicine book provides information about the role that indoor air pollution plays in asthma causation, prevalence, triggering, and severity. [www.nap.edu/books/0309064961/html](http://www.nap.edu/books/0309064961/html)

**Green Flag Schools Program.** Coordinated by the Center for Health Environment and Justice, the Green Flag Schools Program focuses on four project areas: Reduce, Reuse, Recycle; Integrated Pest Management; Indoor Air Quality; and Non-Toxic Products. It has a *Getting Started Guide* for involving elementary and high school students and environmental lesson plans for teachers. [www.greenflagschools.org](http://www.greenflagschools.org)

**Green Seal.** Green Seal, a 501 (c)(3) nonprofit organization, provides science-based environmental certification standards for various products. Its Green Reports provide shopping checklists on carpets, lighting, flooring, and so on. [www.greenseal.org](http://www.greenseal.org)

**Green Zone: An Asthma Toolkit.** The Green Zone, a tool kit created by the National Assembly on School-Based Health Centers, is a collection of numerous asthma resource materials for elementary school-based health care professionals. It is appropriate for use with teachers, school staff, parents, and students. [www.nasbhc.org/TAT/Toolkits.htm](http://www.nasbhc.org/TAT/Toolkits.htm)

**Health Considerations When Choosing School Flooring.** Written for the New England Asthma Regional Council by Frances Gilmore, MS, this fact sheet and its companion purchasing menu, provides guidance for those

charged with procuring school flooring, with attention to impacts on health, costs and the environment.  
[www.asthmaregionalcouncil.org/about/focus\\_schools.html](http://www.asthmaregionalcouncil.org/about/focus_schools.html)

**Healthier Schools: A Review of State Policies for Improving Indoor Air Quality.** This report, published by the Environmental Law Institute provides detailed information on state policies that aim to prevent school indoor air problems by promoting better maintenance and management of existing facilities, as well as better design and construction practices in new and renovated schools. The report identifies many of the state laws and regulations that have been developed so far, describes their key components, and highlights current implementation efforts. The report can be downloaded for free (go to “Publications,” then click on “Indoor Environments and Green Building”). [www.eli.org](http://www.eli.org)

**Healthy Schools Network, Inc.** This national not-for-profit organization operates a clearinghouse with numerous guides, materials, and reports on school environmental health issues.  
[www.healthyschools.org](http://www.healthyschools.org)

**Indoor AIRepair™ at Home, School and Play.** These three downloadable newsletters, published by the Allergy & Asthma Network Mothers of Asthmatics, explore the connection between indoor air quality and asthma and offer low-and no-cost solutions. [www.breatherville.org/schoolhouse](http://www.breatherville.org/schoolhouse).

**Indoor Air Quality (IAQ) Tools for Schools.** This comprehensive resource, developed by the U.S. Environmental Protection Agency, can help schools maintain a healthy environment by using low-cost methods to identify, correct, and prevent poor IAQ. The kit includes easy-to-follow checklists for all school employees, video, sample memos and policies, a recommended management plan, and a unique problem-solving wheel. The kit and video are free.  
[www.epa.gov/iaq/schools/toolkit.html](http://www.epa.gov/iaq/schools/toolkit.html)

**Integrated Pest Management (IPM) in Schools.** This Web site, provided by the U.S. Environmental Protection Agency, encourages and assists school officials in examining and improving their pest management practices. It identifies ways to reduce the use of pesticides in school buildings and landscapes, as well as alternative methods of managing pests commonly found in schools. [www.epa.gov/pesticides/ipm](http://www.epa.gov/pesticides/ipm)

**Metropolitan Washington Council of Governments (MCOG).** MCOG provides daily forecasts of air quality. Sign up for alerts via e-mail or text messaging or check the news for bad air days. [www.mwcog.org/environment/air/forecast](http://www.mwcog.org/environment/air/forecast)

**Mold and Remediation in School and Commercial Buildings.** This guidance document, published by the U.S. Environmental Protection Agency, contains sections on preventing, investigating, evaluating, and remediating moisture and mold problems; a checklist for mold remediation; and a resource list. [www.epa.gov/mold/mold\\_remediation.html](http://www.epa.gov/mold/mold_remediation.html)

**National Center for Environmental Health (NCEH).** The Centers for Disease Control and Prevention’s NCEH offers numerous resources, including a list of effective school asthma health interventions. [www.cdc.gov/asthma](http://www.cdc.gov/asthma)

**National Clearinghouse for Educational Facilities (NCEF).** NCEF provides an exhaustive resource list of links, books, and journal articles on healthy and environmentally safe school facilities. NCEF has additional resource lists for K-12 schools on Indoor Air Quality, Hazardous Materials, Green Cleaning, Pesticides and Integrated, Mold in Schools, and more. [www.edfacilities.org/rl/healthy\\_schools.cfm](http://www.edfacilities.org/rl/healthy_schools.cfm)

**National Education Association Health Information Network (NEA HIN) – Environmental Health.** NEA HIN recognizes the connection between health and learning. A safe and healthy school environment provides a better learning environment. This Web site covers resources including indoor air quality in schools, asthma, anthrax, and statistical information for schools. <http://neahin.org/programs/environmental/index.htm>

**Reducing Asthma Triggers in Schools: Recommendations for Effective Policies, Regulations, & Legislation.** Written for the New England Asthma Regional Council by Joan N. Parker, MS, CIH, this document provides concise recommendations for state laws and regulations that will help control and, ideally, prevent indoor air quality problems, with the goal of reducing the occurrence and severity of asthma and other respiratory diseases. [http://www.asthmaregionalcouncil.org/about/focus\\_schools.html](http://www.asthmaregionalcouncil.org/about/focus_schools.html)

### **Safer Schools: Achieving a Healthy Learning Environment Through Integrated Pest Management.**

This 2003 report by the School Pesticide Reform Coalition and Beyond Pesticides is a resource for schools, community members, activists, policymakers, and pest management practitioners. It can be downloaded from the Web. [www.beyondpesticides.org/schools/publications/IPMSuccessStories.pdf](http://www.beyondpesticides.org/schools/publications/IPMSuccessStories.pdf)

**What You Should Know About Diesel Exhaust and School Bus Idling.** This U.S. Environmental Protection Agency fact sheet describes the harmful effects of school bus idling on health, particularly children's health, and includes recommended actions to reduce diesel pollution. [www.epa.gov/region01/eco/diesel/assets/pdfs/Diesel\\_Factsheet\\_Schoolbus.pdf](http://www.epa.gov/region01/eco/diesel/assets/pdfs/Diesel_Factsheet_Schoolbus.pdf)

## **PHYSICAL ACTIVITY AND ATHLETICS**

**Asthma and Physical Activity in the School.** This easy-to-read booklet, designed by the National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program, is for teachers and coaches who want to help students with asthma participate in sports and physical activities. It covers the causes of asthma, symptoms of an asthma attack, how to avoid and control asthma triggers, how to help students who take medications, and how to modify activities to match children's current asthma status. It also includes a reproducible student asthma action card. [www.nhlbi.nih.gov/health/public/lung/asthma/phy\\_asth.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/phy_asth.htm)

**Breathing Difficulties Related to Physical Activity for Students With Asthma: Exercise-Induced Asthma.** This resource, developed by the National Heart, Lung, and Blood Association's National Asthma Education and Prevention Program, offers tips for addressing exercise-induced asthma and is aimed at school personnel who are responsible for physical activity and sports programs for students. This is a handy tool that can be used in conjunction with asthma education programs for school personnel and as a quick reference on coaches' clipboards. [www.nhlbi.nih.gov/health/prof/lung/asthma/exer\\_induced.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/exer_induced.htm)

### **National Athletic Trainers' Association Position Statement: Management of Asthma in Athletes.**

Published in the *Journal of Athletic Training*, this position statement presents guidelines for the recognition, prevention, and management of asthma for certified athletic trainers and other health care providers working with athletes with asthma, especially exercise-induced asthma. [www.nata.org/statements/position/asthma.pdf](http://www.nata.org/statements/position/asthma.pdf)

**PELINKS4U.** PELINKS4U is a Web site for K-12 physical education teachers that devotes a section to adapted physical education. Users can sign up for a monthly e-mail newsletter. [www.pelinks4u.org/sections/adapted/adapted.htm](http://www.pelinks4u.org/sections/adapted/adapted.htm)

**Winning with Asthma.** A free 30-minute interactive educational tool for coaches from the Minnesota Department of Health Asthma Program and the Utah Department of Health Asthma Program. [www.winningwithasthma.org](http://www.winningwithasthma.org)

## **FOR CHILDREN**

**AIRNow's Kids Air.** The U.S. Environmental Protection Agency and other federal, tribal, state, and local agencies developed AIRNow's Kid's Air Web sites (for ages 7-10 and grades K-1) to provide students, teachers, and parents easy access to national air quality information. The Web sites include games, classroom posters, and other materials. [http://airnow.gov/index.cfm?action=aqikids\\_new.main](http://airnow.gov/index.cfm?action=aqikids_new.main)

**The Allergy Wizard™.** The National Jewish Medical and Research Center's Allergy Wizard has child-friendly information and games in English and Spanish. [www.nationaljewish.org/disease-info/diseases/allergy/kids](http://www.nationaljewish.org/disease-info/diseases/allergy/kids)

**Arthur: PBS Kids, "All About Asthma."** A multilingual selection of PDF files with asthma teaching tools, coloring pages and more from this award-winning site (scroll down the page to locate asthma resources.) <http://pbskids.org/arthur/parentsteachers/lesson/health#asthma>

**The Asthma Wizard™.** The National Jewish Medical and Research Center's Asthma Wizard has child-friendly information and games in English and Spanish. [www.nationaljewish.org/disease-info/diseases/asthma/kids/wizard-index.aspx](http://www.nationaljewish.org/disease-info/diseases/asthma/kids/wizard-index.aspx)

**Attack Asthma.** This Web site for kids from the U.S. Environmental Protection Agency features Dusty the Goldfish and games to learn about asthma triggers and how to avoid asthma attacks. [www.noattacks.org/forkids.html](http://www.noattacks.org/forkids.html)

#### **Children’s Books (order through bookstores):**

- *The ABC’s of Asthma* by Kim Gosselin, JayJo Books (ages 5 – 7)
- *All About Asthma* by William Ostrow and Vivian Ostrow (ages 7 – 11)
- *The Babysitter’s Club: Welcome to the BSC, Abby* by Ann M. Martin (ages 11 – 15)
- *I’m Tougher Than Asthma* by Alden R. Carter and Siri M. Carter (ages 5 – 10)
- *Jackie Joyner-Kersey: Champion Athlete* (ages 13 – 17)
- *Kids Breathe Free: A Parent’s Guide for Treating Children with Asthma*, Prichett & Hull Associates, Inc. (Parents and Children ages 5 – 9)
- *The Lion Who Had Asthma* by Jonathan London (ages 5 – 7)
- *Once Upon a Breath: the story of a wolf, 3 pigs and asthma* by Aaron Zevy, Tumbleweed Press
- *The Respiratory System* by Darlene Stille, Children’s Press
- *SPORTSercise!* By Kim Gosselin (Teachers and Children ages 6 – 9)
- *Taking Asthma to School* by Kim Gosselin, JayJo Books (Teachers and Children ages 6 – 9)
- *ZooAllergy* by Kim Gosselin, JayJo Books (ages 6 – 9)

**Fit 4 Life: Meeting the Challenge.** This Centers for Disease Control and Prevention Body and Mind (or BAM!) site written especially for children with asthma emphasizes the importance of asthma-friendly activities such as swimming, bicycling, golf, inline skating, and weightlifting. The authors note that physical activity, which doctors advise, can improve breathing and lead to fewer asthma attacks; they recommend following several tips: ease into it, take a buddy, respect the body’s signals, take breaks, and cross-train. Links to helpful sites are included as well as a disease detection profile. <http://www.bam.gov/fit4life/dont.htm>

**Food Allergy Website Just for Kids!** The Food Allergy & Anaphylaxis Network provides information and activities about food allergies for children. [www.fankids.org](http://www.fankids.org)

**Just For Kids: Dispelling the Myths of Exercise-Induced Asthma by Joanna Zeiger.** Joanna Zeiger is a world class triathlete and former Olympian who has exercise-induced asthma. She is living proof that asthma doesn’t have to stop you from achieving your goals. She shares her advice on exercise-induced asthma on the American Academy of Allergy, Asthma and Immunology Web site. [www.aaaai.org/patients/just4kids/exercise\\_induced/default.stm](http://www.aaaai.org/patients/just4kids/exercise_induced/default.stm)

**Just For Kids: Dr. Al Coloring Book Pages.** In this coloring book from the American Academy of Allergy, Asthma and Immunology, you’ll find superheroes like Dr. Al Lergist, and his partners, Annie Histamine, Buster Bronchodilaurus and Duel Action (a.k.a. Double Whammy). Their job is to help kids and grown-ups feel better when their allergies or asthma bother them. The bad guys like Darth Mite, Big Bad Roach, Meeyowa Monstera the Cat Hairress, Count Igor von Pollen, and Scuzzbucket, can be big troublemakers. People with allergies and asthma should try to avoid them as much as they can. <http://www.aaaai.org/patients/just4kids/coloringbook/default.stm>

**Kids Health for Kids.** From the Nemours Foundation, this Web site provides information and activities on asthma, allergy, and other health issues. [www.kidshealth.org/kid](http://www.kidshealth.org/kid)

**Kids’ Page & Green Squad.** This Web site from the Healthy Schools Network provides interactive games, activities, and posters about the school environment. [www.healthyschools.org/kids\\_page.html](http://www.healthyschools.org/kids_page.html)

**Meet Disease Detective, Dr. Asthma.** The Centers for Disease Control and Prevention Web site designed to help children learn about disease outbreaks and prevention. <http://www.bam.gov/detectives>

**NIEHS Kids’ Pages.** The NIEHS Kids’ Pages are produced by the Office of Management, National Institute of Environmental Health Sciences, National Institutes of Health, U.S. Department of Health and Human Services. Kids’ Pages includes games, activities, sing-along songs, and brainteasers. <http://kids.niehs.nih.gov/home.htm>

**The SDA Kids Corner.** From the Soap and Detergent Association Web site for kids provides information on why clean hands are important to health, recycling, and related environmental health topics. [www.cleaning101.com/sdakids](http://www.cleaning101.com/sdakids)

**Zoey & the Zones Kids Zone.** The company HealthZones created Zoey and the Zones to provide parents and their children with a fun, entertaining, educational tool to help them manage their child's asthma. [www.zoeyzones.com/4kids/activities/4kids.htm](http://www.zoeyzones.com/4kids/activities/4kids.htm)

## FOR YOUTH

**Kids Health for Teens.** From the Nemours Foundation, this Web site provides information and activities on asthma, allergy, and other health issues. [www.kidshhealth.org/teen](http://www.kidshhealth.org/teen)

**EPA Student Center.** This Web site from the U.S. Environmental Protection Agency provides fun, educational opportunities for youth to learn about many aspects of the environment. [www.epa.gov/students](http://www.epa.gov/students)

**Youth Advocates of the Year Awards.** This program, sponsored by the Campaign for Tobacco-Free Kids, honors the outstanding work of young advocates who have taken the lead in holding the tobacco industry accountable for their efforts to market their products to youth. Winners receive scholarships and grants and are expected to work closely with the Campaign throughout the year following their award. [www.tobaccofreekids.org/campaign/yayas](http://www.tobaccofreekids.org/campaign/yayas)

**Youth Tobacco Prevention.** Educational resources and materials, such as videos, tip sheets, and posters from the Centers for Disease Control and Prevention. [www.cdc.gov/tobacco/youth](http://www.cdc.gov/tobacco/youth)

## ANNUAL EVENTS CALENDAR

**Food Allergy Awareness Week.** Many schools across the country participate in this annual event held during the third week in May. The Food Allergy & Anaphylaxis Network makes available proclamations, examples, and other helpful resources. [www.foodallergy.org/FAAW/index.html](http://www.foodallergy.org/FAAW/index.html)

**Kick Butts Day.** This annual spring event, sponsored by the Campaign for Tobacco-Free Kids, engages students from throughout the county in awareness-raising events about the dangers of tobacco use. The downloadable Kick Butts Day Guide includes great ideas for events that can be held throughout the year to support action to reduce tobacco use. [www.kickbuttsday.org](http://www.kickbuttsday.org)

**National Allergy and Asthma Awareness Month.** This commemoration is held every May with activities to increase public understanding of asthma, allergy, and environmental triggers. The Asthma Awareness Month Event Planning Kit from the U.S. Environmental Protection Agency includes a section on how to plan an asthma education event in your school and ten ways to manage asthma in the school environment. <http://www.epa.gov/asthma/awm.html>

**National Healthy Schools Day.** Celebrated with events throughout the country each April, the day's main goal is to make people aware of the need to maintain existing and design new school buildings that promote health and learning. National Healthy Schools Day is sponsored by the Healthy Schools Network, Inc. and co-sponsored by other organizations such as the Collaborative for High Performance Schools and the U.S. Environmental Protection Agency. [www.healthyschools.org/nhs\\_day.html](http://www.healthyschools.org/nhs_day.html)

**National Preparedness Month.** Sponsored by the U.S. Department of Homeland Security in September, the purpose of this campaign is to encourage businesses, families, and schools to prepare for all types of emergencies. [www.ready.gov/america/npm07](http://www.ready.gov/america/npm07)

**Tar Wars Tobacco-Free Program Poster Contest.** This annual poster contest, sponsored by the American Academy of Family Physicians, is for fourth and fifth graders. Click on "Poster Contest." [www.tarwars.org](http://www.tarwars.org)

**World Asthma Day.** World Asthma Day takes place each year on the first Tuesday in May. It is organized by the Global Initiative for Asthma (GINA) in collaboration with health care groups and asthma educators to raise awareness about asthma and improve asthma care throughout the world. Activity planning kits and examples from past events are available. [www.ginaasthma.com](http://www.ginaasthma.com)

**World No Tobacco Day.** Sponsored by the World Health Organization, World No Tobacco Day is celebrated around the world on May 31. [www.who.int/tobacco/communications/events/wntd/2007/en/index.html](http://www.who.int/tobacco/communications/events/wntd/2007/en/index.html)

## HEALTHCARE PROVIDERS

**asthma friendly® Certification Mark.** The **asthma friendly®** Certification Program was developed and launched in the U.S. by Allergy Standards Limited (ASL) in partnership with the Asthma and Allergy Foundation of America (AAFA) - the first program of its kind in the U.S. to write, publish and apply product standards for a wide variety of “asthma friendly” consumer products. The **asthma friendly®** Certification Mark will assist consumers in choosing “friendly” products including plush toys, pillows, bedding, bedding barriers, vacuums, paints, flooring and more. [www.asthmafriendly.com](http://www.asthmafriendly.com)

**American Academy of Allergy, Asthma and Immunology (AAAAI).** AAAAI has a patient/public resource center with excellent one- to two-page fact sheets and news releases on topics relating to asthma. It offers extensive information for health care providers and for patients. Information is available on-line in Spanish. [www.aaaai.org](http://www.aaaai.org)

**American Academy of Pediatrics’ (AAP) School Health Resources.** AAP has a number of school health resources for pediatricians, including a HIPAA Form for Communicating with Schools and other guidance and tools. [www.schoolhealth.org](http://www.schoolhealth.org)

**Anaphylaxis.com.** Practice tools, such as case studies and questionnaires, current treatment guidelines, and resources related to anaphylaxis, such as a slide presentation and a bibliography, from Dey Pharmaceuticals, the manufacturer of EpiPen®. [www.anaphylaxis.com](http://www.anaphylaxis.com)

**Creating a Medical Home for Asthma: An Asthma Management Program for Healthcare Providers (CMHA).** Developed by a team of investigators from Columbia University led by Dr. David Evans for the New York City Department of Health and Mental Hygiene, CHMA provides training in a team-based approach to pediatric asthma management and care. It includes an *Instructor’s Guide*, *Program Handbook*, and *Implementation Guide*. <http://www.nyc.gov/html/doh/html/cmha/index.html>

**The Healthy House Institute™ (HHI).** HHI provides consumers information to make their homes healthier. HHI strives to be the most comprehensive educational resource available for creating healthier homes. [www.healthyhouseinstitute.com](http://www.healthyhouseinstitute.com)

**Mayo Clinic Allergy and Asthma Center.** The Asthma Center Web site includes interactive quizzes, reference articles appropriate for both parents and medical personnel, and a pertinent section on first aid for allergic and venom reactions. [www.mayohealth.org](http://www.mayohealth.org)

**National Jewish Medical and Research Center.** This is the only medical and research center in the United States entirely devoted to respiratory, allergic, and immune system diseases. Their “Lung Line” page lists several good educational booklets. Single copies are available at no cost. [www.nationaljewish.org](http://www.nationaljewish.org)

**Pediatric Asthma: Promoting Best Practices.** The American Academy of Allergy, Asthma, and Immunology developed this comprehensive medical resource guide for managing asthma in children. It is available online for download. Emphasis is placed on recommendations addressing practical decision-making issues in diagnosis and management. [www.aaaai.org/members/resources/initiatives/pediatricasthmaguidelines/default.stm](http://www.aaaai.org/members/resources/initiatives/pediatricasthmaguidelines/default.stm)

**Schooled in Asthma.** The American Academy of Pediatrics developed this Web site which includes resources to encourage pediatricians to incorporate evidence-based asthma management guidelines with school health concepts and practices. It offers templates for Asthma Action Plans and a variety of additional tools to facilitate communication between school personnel and students’ health care practitioners. [www.aap.org/schooledinasthma](http://www.aap.org/schooledinasthma)

**Taking on Asthma: Communication, Education, and Outreach.** This initiative of America’s Health Insurance Plans and supported through a cooperative agreement with the U.S. Environmental Protection Agency is based on the premise that health insurance plans have a unique opportunity to offer evidence-based asthma management programs that include the management of environmental asthma triggers, including irritants such as secondhand smoke and major indoor allergens such as dust mites, cockroaches, pet dander, and mold. The initiative includes *Taking on Asthma: A Resource Guide for Health Insurance Plans*. [www.takingonasthma.org](http://www.takingonasthma.org)

**Treating Tobacco Use and Dependence. Quick Reference Guide for Clinicians.** This publication, issued by the Agency for Healthcare Research and Quality in June 2000, summarizes evidence-based guideline strategies for helping patients to quit. [www.ahrq.gov/path/tobacco.htm](http://www.ahrq.gov/path/tobacco.htm)

**Twinject.com.** Practice tools, frequently asked questions, current treatment guidelines, and resources related to anaphylaxis, from Versus™ Pharmaceuticals, the manufacturer of Twinject®. [www.twinject.com](http://www.twinject.com)

## POLICY AND LEGISLATION

**Asthma: A Growing Epidemic (Environmental Health Series, 2000).** This 2004 report from the National Conference of State Legislatures discusses the reasons for the escalating rate of asthma in the United States, and Federal/State efforts to address the problem. The authors note that over the past 20 years prevalence of the disease has risen 160 percent in children under 5; the fact that children are spending more time indoors and exercising less could be an explanation for the dramatic increase. The Federal Government has slated \$68 million to implement recommendations focusing on school-based asthma programs, disease management strategies to target low-income children, and a national public information campaign. [www.ncsl.org/print/enviro/ehhealth/ehasthma.pdf](http://www.ncsl.org/print/enviro/ehhealth/ehasthma.pdf)

**Asthmatic Schoolchildren's Treatment and Health Management Act of 2004** (Public Law 108-377). Signed into law on Oct. 30, 2004, this Act requires the Secretary of the U.S. Department of Health and Human Services, when making grants to states for asthma-related activities, to give preference to states that require schools to allow students to self-administer medication to treat their asthma or anaphylaxis. [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108\\_cong\\_public\\_laws&docid=f:publ377.108.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ377.108.pdf)

**Council of School Attorneys (COSA).** COSA of the National School Boards Association offers detailed guidance for schools and districts on numerous legal issues, including health records and confidentiality. [www.nsba.org/cosa](http://www.nsba.org/cosa)

**Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA)** (Title II of Public Law 108-282). FALCPA is intended to improve food labeling information for the millions of consumers who suffer from food allergies. The Act will be especially helpful to children who must learn to recognize the allergens they must avoid. FALCPA: <http://www.cfsan.fda.gov/~dms/alrgact.html>.

**Issue Brief on Asthma.** This document, written by NASBE, is a compilation of asthma-related written education policies in all 50 states. The information is organized by type of policy and lists which states have that particular asthma-related policy. <http://nasbe.org/HealthySchools/States/Asthma%20brief.pdf>

**Student Access to Treatment Emergency Act of 2007 (A17-0082).** The Council of the District of Columbia passed this emergency legislation on July 10, 2007, "To permit, on an emergency basis, a student with a medication action plan to possess and self-administer asthma or anaphylaxis medications while at the school in which the student is currently enrolled, at school-sponsored activities, and while on school-sponsored transportation, to require schools to maintain student medical records in an easily accessible location, to prohibit the misuse of self-administered medications, to allow schools to store additional medication for self-administering students, and to authorize the Mayor to promulgate rules to implement the provisions of this act." [www.dccouncil.washington.dc.us/images/00001/20070730121312.pdf](http://www.dccouncil.washington.dc.us/images/00001/20070730121312.pdf)

**U.S. Department of Education – Office for Civil Rights (OCR).** OCR provides information, guidance, and enforcement of the federal laws that guarantee the rights of students with disabilities. [www.ed.gov/about/offices/list/ocr/index.html?src=oc](http://www.ed.gov/about/offices/list/ocr/index.html?src=oc)

**U.S. Department of Education – Office of Special Education and Rehabilitative Services (OSERS).** OSERS provides information, guidance, and administration of the Individuals with Disabilities Education Act (IDEA). [www.ed.gov/about/offices/list/osers/index.html?src=oc](http://www.ed.gov/about/offices/list/osers/index.html?src=oc)

**U.S. Department of Education – Family Policy Compliance Office (FPCO).** FPCO offers information and guidance regarding the Family Education Rights and Privacy Act (FERPA). [www.ed.gov/policy/gen/guid/fpc](http://www.ed.gov/policy/gen/guid/fpc)

**U.S. Department of Justice – Civil Rights Division.** The Civil Rights Division provides a Guide to Disability Rights Laws. [www.usdoj.gov/crt/ada/cguide.htm](http://www.usdoj.gov/crt/ada/cguide.htm)

**U.S. Department of Health and Human Services – Office for Civil Rights (OCR).** OCR offers guidance on implementing the privacy act of the Health Insurance Portability and Accountability Act (HIPAA). [www.hhs.gov/ocr](http://www.hhs.gov/ocr)

## **ORGANIZATIONS, ASSOCIATIONS, AND GOVERNMENT AGENCIES**

**Allergy & Asthma Network Mothers of Asthmatics**  
[www.aanma.org](http://www.aanma.org)

**Allies Against Asthma (The Robert Wood Johnson Foundation)**  
[www.asthma.umich.edu](http://www.asthma.umich.edu)

**American Academy of Allergy, Asthma and Immunology**  
[www.aaaai.org](http://www.aaaai.org); 800-822-2762

**American College of Chest Physicians**  
[www.chestnet.org](http://www.chestnet.org)

**American Academy of Pediatrics**  
[www.aap.org](http://www.aap.org)

**American College of Allergy, Asthma, and Immunology**  
[www.acaai.org](http://www.acaai.org)

**American College of Chest Physicians**  
[www.chestnet.org](http://www.chestnet.org)

**American Lung Association**  
[www.lungusa.org](http://www.lungusa.org); 800-586-4872

**American Medical Association**  
[www.ama-assn.org](http://www.ama-assn.org)

**Asthma and Allergy Foundation of America**  
[www.aafa.org](http://www.aafa.org); 800-7-ASTHMA

**Community Action to Fight Asthma**  
[www.calasthma.org](http://www.calasthma.org)

**California Department of Health Services**  
California Asthma Public Health Initiative  
[www.caasthma.org](http://www.caasthma.org)

**Center for Health Care Strategies**  
[www.chcs.org](http://www.chcs.org)

**Centers for Disease Control and Prevention**  
[www.cdc.gov](http://www.cdc.gov)

**Global Initiative for Asthma**  
[www.ginasthma.com](http://www.ginasthma.com)

**National Asthma Educator Certification Board**  
[www.naecb.org](http://www.naecb.org)

**National Association of State Boards of Education**  
[www.nasbe.org](http://www.nasbe.org)

**National Conference of State Legislatures**  
[www.ncsl.org](http://www.ncsl.org)

**National Heart, Lung, and Blood Institute**  
National Asthma Education and Prevention Program  
[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)  
[www.nhlbi.nih.gov/about/naepp/index.htm](http://www.nhlbi.nih.gov/about/naepp/index.htm)

**The New England Journal of Medicine**  
[www.nejm.org](http://www.nejm.org)

**Regional Asthma Management and Prevention Initiative**  
[www.rampasthma.org](http://www.rampasthma.org)

**SchoolAsthmaAllergy.com**  
[schoolasthmaallergy.com](http://schoolasthmaallergy.com)

**U.S. Environmental Protection Agency**  
[www.epa.gov](http://www.epa.gov)

# Glossary

**airways** – Common term used to describe the passages in the lungs that move air into and out of the body. Sometimes called bronchial tubes, bronchi or respiratory system.

**allergen** – A substance which causes an allergic response in sensitive individuals. Allergens can be either natural (e.g., pollen, dust) or man made (e.g., perfume, cleaning agents).

**allergy/allergies** – An overreaction by the body’s immune system to a specific substance called an allergen. An allergy occurs only in people sensitive to a particular allergen(s).

**allergic reaction** – Response in children sensitive to specific allergens. An allergic reaction can occur in different parts of the body. Common areas include the skin, the eyes, the respiratory system and the gastrointestinal tract. Symptoms often include itching, sneezing, runny nose, coughing, wheezing or shortness of breath.

**anaphylactic shock/anaphylaxis** – The most severe or extreme type of allergic reaction, creating a potentially life-threatening medical emergency. Most common cause is reaction to a medication. Other causes include insect stings and foods.

**asthma** – A chronic lung disease with three key features: swelling of the airways (inflammation), mucous production, and tightening of the muscles around the airways (bronchoconstriction), resulting in increased irritability of the airways and obstruction to air outflow. Symptoms may include wheezing, coughing, feeling of “tightness” in the chest, difficulty breathing, itching neck, throat and ears. Symptoms vary greatly from person to person, and usually, individuals with asthma also experience “ups and downs” with symptoms. No cause or cure is yet known. Symptoms can be well managed and stabilized for most people who have asthma. Certain substances or conditions may trigger asthma symptoms.

**asthma action plan** – A document which outlines the treatment approach for a child who has asthma; developed in consultation with the health care provider, family members and caregivers. Effective action plans help children control their asthma and live healthy active lives.

**asthma episode/attack/exacerbation** – A time when asthma symptoms flare up or intensify, requiring immediate adjustments in treatment and medication to get symptoms under control. Asthma episodes may occur suddenly, with few warning signs, or build slowly over a period of hours or even days. Most asthma episodes can be handled by following the child’s asthma action plan. Often called “asthma attacks,” the more appropriate term is “asthma episode.”

**asthma management** – can be defined as managing, preventing, treating and controlling factors (environmental, medications, etc.) that affect a child’s asthma.

**asthma management plan** – Detailed guidelines for schools to use in working with all children and staff to manage asthma.

**B<sub>2</sub>-agonist** – B<sub>2</sub>-agonist stands for beta-adrenoceptor agonist. Short-acting B<sub>2</sub>-agonists (e.g., albuterol) are used for the quick relief of bronchospasm in asthma and are administered by inhaler (preferably with spacer) or by nebulizer. They do not treat the underlying chronic inflammation of asthma. Long-acting B<sub>2</sub>-agonists (e.g., *Serevent*®, *Foradil*®) also are used to relax muscles around the airways but work slower. Long-acting B<sub>2</sub>-agonists are for use only in combination with inhaled corticosteroids and never should be used alone.

**brittle asthma** – This is a rare form of asthma where a child gets little or no warning of an asthma episode. They can go from being perfectly well to having a severe life-threatening attack in the space of a few minutes.

**bronchial tubes** – The major airways of the respiratory system that carry air from the trachea (windpipe) to the microscopic air sacs (alveoli) in the lungs.

**bronchitis** – An infection or inflammation in the bronchial tubes caused by bacteria, a virus, an allergy or other irritants. Typical symptoms may include coughing, wheezing, shortness of breath, chills, fever, fatigue and excessive phlegm. Underdiagnosis of asthma is a frequent problem, especially in children who wheeze when they have respiratory infections. These children are often labeled as having bronchitis, bronchiolitis, or pneumonia even though the signs and symptoms are most compatible with a diagnosis of asthma. The clinician needs, however, to be aware of other causes of airway obstruction leading to wheezing.

**bronchodilator** – A medication used by many children who have asthma to relax bronchial muscles, and in turn, open up the bronchial tubes.

**bronchospasm; bronchoconstriction** – The tightening in the airways of the respiratory system that occurs with asthma or allergies. Caused when the muscles around the bronchial tubes contract in response to specific triggers.

**Centers for Disease Control and Prevention** – CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States.

**controller or long-term acting medication** – The standard treatment of asthma for most children who need regular, or ongoing, medicine. These kinds of medications provide “long-term relief” by acting in a preventive way to make airways less sensitive, minimizing or reducing symptoms before they even appear.

**corticosteroid** – Steroidal anti-inflammatory medication useful for children who have asthma. Considered the most effective “controller” medication available today. Is also used for brief periods to manage acute attacks. Delivered as an inhaler (when used as a controller), and in pill or liquid form (when used to treat an acute attack). Not the same as anabolic steroids.

**dander** – Scaly or shredded dry skin that comes from animals or bird feathers. Dander may be a cause of an allergic response in susceptible persons.

**diurnal variation** – In the context of asthma, this is the difference between how wide the airways in the lungs are if measured twelve hours apart. Our airways narrow and open naturally over each 24 hour period even in people who do not have asthma. In children who have asthma, the variation is much greater. Generally, the greater the diurnal variation, the more unstable the child’s asthma. Diurnal variation is usually measured in asthma by taking morning and evening peak flow readings. There are a number of ways of calculating diurnal variation.

**eczema** – Changes in the skin that include scalyness and may include redness (inflammation). Eczema is usually dry unless infected. Eczema often is found in the flexion areas of the elbows and behind the knees, but may occur anywhere on the skin. Eczema is sometime due to allergy.

**environmental control measures** – Specific procedures undertaken to remove known allergens or irritants from a designated area.

**EpiPen®** – The trade name, or manufacturer’s name, for a device used to self-inject or inject into a patient epinephrine, a medication used to bring quick relief by improving breathing and heart function in life-threatening medical emergencies such as anaphylaxis. (Twinject® is another brand of the same medication in a self-injector device.)

**exercise-induced asthma (EIA)** – Asthma symptoms which appear following strenuous exercise. Symptoms may be minimal or severe enough to require emergency treatment. About one in 10 students experience exercise-induced asthma.

**hidden ingredients** – Some prepared food products contain derivatives or “by products” of other foods. These “hidden ingredients” may or may not be shown on the food label.

**inhaler/metered-dose inhaler (MDI)** – A device used to deliver a variety of commonly prescribed asthma medications which help ease breathing by opening up the airways.

**Integrated Pest Management (IPM)** – Procedures developed by the Environmental Protection Agency to reduce exposure to cockroaches, rats, mice, and other pests that may invade a school setting.

**intrinsic asthma** – Children whose symptoms do not seem to be brought on by anything external are said to have non-allergic or intrinsic asthma. Symptoms are more likely to be triggered by, for example, exercise, emotion or some drugs such as aspirin.

**irritant** – Any substance which causes inflammation or an adverse reaction on the skin or in the body. An irritant may trigger asthma or allergy symptoms, but they may not be considered an allergen. Examples of irritants include tobacco smoke, chemical fumes, insecticides or air pollution.

**long-term acting medication or controller medication** –

The standard treatment of asthma for most children who need regular, or ongoing, medicine. These kinds of medications provide “long-term relief” by acting in a preventive way to make airways less sensitive, minimizing or reducing symptoms before they even appear.

**mucus** – Often called phlegm or sputum, this slippery fluid is produced by the membranes lining the airways to aid in various body functions. Exposure to certain triggers can increase mucus production for asthma patients. The increased amount of mucus makes breathing more difficult.

**National Institutes of Health (NIH)** – Founded in 1887, the National Institutes of Health today is one of the world’s foremost medical research centers, and the federal focal point for medical research in the United States. The NIH, comprising 27 separate Institutes and Centers, is one of eight health agencies of the Public Health Service, which, in turn, is part of the U.S. Department of Health and Human Services. NHLBI (National Heart, Lung and Blood Institute) is part of the NIH.

**nebulizer** – A small, portable machine used to deliver certain asthma medications. The nebulizer is plugged into an electrical outlet. A nebulizer treatment usually takes 10-15 minutes to complete. Children requiring regular nebulizer treatments may need access to a nebulizer at school.

**peak flow meter (PFM)** – A small, portable hand-held device which measures how well the lungs are able to expel air, allowing children who have asthma to detect airway narrowing and adjust medications accordingly.

**quick-relief medication or rescue medication** –

Medicine taken to relieve asthma symptoms. Called “quick relief” because they can act immediately to reduce symptoms that appear suddenly.

**respiratory virus** – Illnesses affecting the airways caused by a virus. Symptoms of respiratory virus include those of a “cold;” i.e., runny nose, cough and fever. They may, at times, be confused with asthma symptoms; and children who have asthma may experience increased asthma symptoms for some time following a respiratory virus.

**sensitivity/sensitization** – Refers to a person’s response when exposed to an allergen. For some people, repeated exposure to certain substances makes them more likely to develop an allergic reaction.

**spacer** – A short tube device which can be attached to an inhaler to help the child use the inhaler more effectively.

**trigger/triggers** – A substance or environmental condition that cause asthma or allergy symptoms to appear.

**Twinject®** – The trade name, or manufacturer’s name, for a device used to deliver epinephrine, a medication used to bring quick relief by improving breathing and heart function in life-threatening medical emergencies. (EpiPen® is another brand of the same medication in a self-injector device.)

**wheezing/wheeze** – The whistling sound which occurs when air moves through narrowed or tightened airways. May be heard on exhalation. Wheezing is a classic symptom of asthma. Not all wheezing can be heard by the ears; a stethoscope may be needed to detect levels of wheezing within the lungs.