



# BREATHING SPACE

## Respiratory Disease Newsletter

Minnesota Department of Health  
Health Promotion and Chronic Disease Division  
Chronic Disease & Environmental Epidemiology Section

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### Time to Get Flu and Other Shots

Winter is here and it's time to get flu shots, but other shots may also be recommended! Whether it's flu or pertussis or any other vaccine preventable disease, people with asthma are at high risk of developing complications from these diseases, such as pneumonia and acute respiratory disease. Make sure people with asthma are vaccinated appropriately. Here are some recommendations:

**Influenza** – All persons age 6 months and older should get a yearly flu vaccination - especially those with risk factors like asthma and diabetes. Influenza in the lungs can trigger asthma attacks or worsen asthma symptoms, even if the asthma is mild or well controlled. Some children age 6 months through 8 years may need two doses this year.

**Pertussis (Tdap)** – Preteens should get a Tdap vaccine at their 11-12 year old visit in place of a Td booster. Pertussis (whooping cough) is very contagious and can cause prolonged, sometimes extreme, coughing which is often more severe in persons with asthma. Younger children are protected when they get the DTaP vaccine, but protection wears off as kids get older, so preteens need a booster shot of Tdap.

**BAN THE BUG!**

*It's not too late to get your flu shot.*

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### Susan Ross, RN, Receives Community Health Service Award

Susan Ross, clinical advisor to the MDH asthma program, was one of the individuals or groups to receive a Community Health award from Minnesota Commissioner of Health, Dr. Ed Ehlinger, on September 14, 2011. Award-ees were selected by their peers and received the awards at the 2011 Community Health Conference. Susan received one of two Certificates of Recognition awarded. These are given to "individuals or groups who have demonstrated a significant commitment to public health." In presenting the award to Susan, Dr. Ehlinger stated: "As clinical advisor, Ms. Ross has created and implemented a number of innovative programs to make a positive difference in the lives of Minnesotans with asthma. Among Ms. Ross' accomplishments is the first publicly available interactive asthma action plan, which allows health care professionals to quickly determine asthma severity by assessing a wide range of symptoms." More information can be found at: <http://www.health.state.mn.us/news/pressrel/2011/chsawards091511.html>.

Congratulations, Susan!

# Asthma in Minnesota Middle and High School Students

## Results from the 2011 Youth Tobacco and Asthma Survey

The Minnesota Youth Tobacco and Asthma Survey is a school-based survey of tobacco use, second-hand smoke exposure and other factors. It is conducted by the MDH every 3 years among a representative sample of Minnesota students in grades 6-12. Since 2008, the survey has included several questions on asthma.

### Key Findings

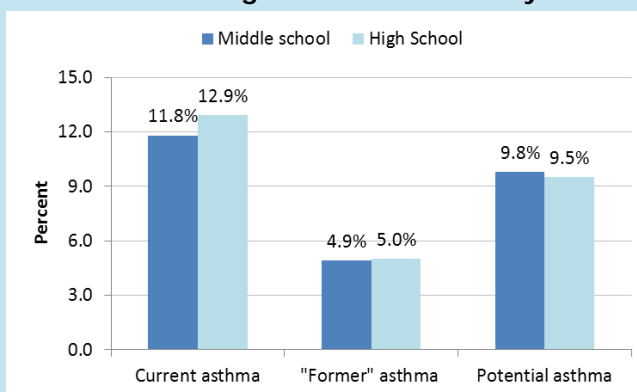
- 17% of Minnesota youth have been diagnosed with asthma at some point in their lives.
- 12% of students report that they have received an asthma diagnosis and have had symptoms of asthma in the past year (*current asthma*).
- 5% of students report having received an asthma diagnosis but have not had symptoms in the past year ("*former*" asthma). Here former is in quotes to acknowledge the fact that ac-

ording to the national guidelines for asthma diagnosis and management, you do not "grow out of asthma"; the underlying condition remains even though symptoms may have gone away.

- 10% of students report that they have experienced wheezing, chest tightness or other symptoms of asthma in the past year when they did not have a cold or

the flu, but have never been diagnosed with asthma (*potential asthma*). While not everyone experiencing asthma-like symptoms actually has asthma, it is likely that some proportion of students in this category do in fact have asthma and would benefit from a health care provider's diagnosis.

Minnesota Middle and High School Students by Asthma Status



Source: Minnesota Youth Tobacco and Asthma Survey, 2011

## MDH Offers Interactive Maps of Asthma Hospitalizations

The MDH website now offers interactive maps of asthma hospitalizations (see Minnesota Public Health Data Access: <https://apps.health.state.mn.us/mndata>).

Local public health professionals and others may use these maps to compare county and state data for public health planning, assessment, and action. "Interactive maps are powerful tools to inform public health actions and priorities," says Julie Ring, Director for the Local Public Health Association of Minnesota. Maps and data on the MN Public Health Data Access portal are downloadable in different formats for use in spreadsheets, reports, and presentations. By summer 2012, MDH will launch new features on the portal,

including an interactive glossary, users' guide, and maps on additional health topics, including cancer and chronic obstructive pulmonary disease (COPD).

For updates about MN Public Health Data Access, sign up to receive portal updates at <https://apps.health.state.mn.us/mndata/home>.

MN Public Health Data Access is updated and maintained by the [Minnesota Environmental Public Health Tracking Program \(MN EPHT\)](https://apps.health.state.mn.us/mndata/home) through a cooperative agreement with the Centers for Disease Control and Prevention. Data for the asthma maps are prepared in collaboration with the MDH Asthma Program.

For additional information about the maps and MN Public Health Data Access, please contact the MN EPHT Program at 800-205-4987 or [health.tracking@state.mn.us](mailto:health.tracking@state.mn.us).



Minnesota  
Environmental  
Public Health  
Tracking

# Tips to Make Your Family More “Air Aware” This Winter

The Minnesota Pollution Control Agency (MPCA) encourages families to become more air aware this winter. While air quality in Minnesota is good on most days, pollution levels in the state do rise on occasion to a level that can impact health. The majority of these bad-air days occur between November and March as fine particle pollutants are trapped in the air. By becoming more air aware, families can take actions to reduce health risks during bad-air days and minimize their contribution to local air pollution every day.

Awareness of air quality is especially important if you have lung disease like asthma, have heart disease, are an older adult or a child, or are active outdoors. Elevated levels of fine particle pollution can irritate the eyes, nose, and throat and cause coughing, tightness in the chest, and shortness of breath. Even otherwise healthy individuals can experience health effects when air pollution levels increase.

Getting the information you need to protect your family from the harmful effects of air pollution is now as easy as checking your local weather forecast. With EnviroFlash, a free service provided by the MPCA and the U.S. Environmental Protection Agency, you can receive useful air-quality information via email or text message.

**It's easy to sign up for EnviroFlash. Just go to [mn.enviroflash.info](http://mn.enviroflash.info), click on “on-line subscription page,” fill in your email address and ZIP code, and select the type of message you want to receive.** You can sign up to receive daily air quality forecasts, or choose to be notified only when the MPCA issues an air quality alert or advisory.

Being air aware also means taking actions to reduce your contribution to air pollution. Most fine-particle pollution is produced when coal, gasoline, diesel fuel, and wood are burned. By choosing these air-pollution-reduction activities, you can improve the air quality in and around your home and across your community.

## **Burn less gasoline:**

- **Drive easy.** Improve fuel efficiency by 10% or more by following green driving tips, <http://www.greencars.org/drivingtips.htm>.
- **Drive less.** Combining trips, carpooling, and using alternative modes of transit, like walking, biking or busing, all help reduce local air pollution. For tips on how to get started, visit <http://www.pca.state.mn.us/hqzq591>.

- **Avoid idling.** Vehicle exhaust is hazardous to health and an indication that fuel is being wasted. For most cars, turning off and restarting the vehicle uses less fuel than idling during stops longer than 30 seconds.

## **Use less energy at home and at work:**

**Reduce demand at home.** Most electricity in Minnesota is produced at facilities that burn coal or natural gas. By lowering your electricity demand your energy savings will also result in less air pollution. For tips on how to reduce energy use in every room of your home, visit Energy Star, <http://www.energystar.gov/index.cfm?fuseaction=popuptool.atHome>.

**Reduce demand at work.** Use power strips to easily turn off electronics when they are not being used, activate your computer's automatic sleep settings, and switch off unnecessary lights. For more tips on how to reduce energy use in the office, visit [http://www1.eere.energy.gov/femp/services/energy\\_aware\\_oec.html](http://www1.eere.energy.gov/femp/services/energy_aware_oec.html).

## **Burn cleaner:**

- **Only burn clean, dry, seasoned, untreated wood.** Burning other materials produces more hazardous air pollutants, and may damage your stove as well as your health.
- **Burn less.** If you do not depend on it for heat, burn less often. It's more economical and will reduce air pollution in your home and in your community. Always avoid unnecessary burning on bad-air days.
- **Maintain your appliances.** Make sure all flues, chimneys, and exhaust vent pipes are properly connected, in good condition, and unobstructed. Have all combustion appliances cleaned and inspected once a year.
- **Convert to a cleaner-burning appliance.** All woodstoves manufactured since 1988 must be EPA-certified, which means they use one-third less wood than older stoves to produce the same amount of heat, while emitting 50 to 60% less air pollution. Natural gas fireplaces also reduce air pollution.



(continued from page 1)

## Time to Get Flu and Other Shots





The vaccine also protects against tetanus and diphtheria. Adults should also get a Tdap in place of their next Td booster.

**Pneumococcal (PPSV)** – Adults age 19 through 64 years with asthma should get a pneumococcal vaccination too! Pneumococcal disease can be a very serious illness causing pneumonia, bacteremia, and meningitis. The pneumococcal polysaccharide vaccine (PPSV) can significantly lower the risk of pneumococcal disease.

**Subscribe and stay up to date!**  
Sign up to receive an email alert when new information is added to

the MDH immunization and vaccine-preventable disease web pages. Go to <http://www.health.state.mn.us/divs/idepc/immunize/index.html> and in the left column you can find information specific to health care providers, child care providers, school personnel, and travelers.

**If you are a health professional,** you may also want to consider subscribing to Influenza Information for Health Professionals to receive updates on influenza. Go to [www.health.state.mn.us/divs/idepc/diseases/flu/hcp/index.html](http://www.health.state.mn.us/divs/idepc/diseases/flu/hcp/index.html), and click on the red envelope  at the top of the page to sign up.

**For School Health Personnel** go to the web page at [www.health.state.mn.us/divs/idepc/immunize/school/index.html](http://www.health.state.mn.us/divs/idepc/immunize/school/index.html) and click on the red envelope  at the top of the page to sign up.

**Enroll in and utilize MIIC**  
School personnel can access the Minnesota Immunization Information Connection (MIIC) immunization registry to look up and keep track of students' immunization histories and immunizations due. Contact your MIIC regional coordinator or the MIIC website for more information, <http://www.health.state.mn.us/divs/idepc/immunize/registry/index.html>.

### Survey for Cosmetologists, Estheticians, and Manicurists!

This survey is intended to collect important health and safety information as it relates to asthma from cosmetologists, estheticians, or manicurists in Minnesota. The survey is for those people who are currently licensed or have been recently licensed by the Minnesota Board of Cosmetology. All responses are anonymous and the data collected will contribute to providing important health and safety information in future training programs.

Please click on the following link to access the survey: <https://survey.vovici.com/se.ashx?s=56206EE307A28569>.

If you have questions about the survey, feel free to contact Kathleen Norlien at 651-201-4613 or [Kathleen.norlien@state.mn.us](mailto:Kathleen.norlien@state.mn.us).

### Children Exposed to Secondhand Smoke Miss More School

Children who live with smokers miss more school due to illness than those who live in households with non-smokers, according to a new study published in the Journal of Pediatrics.

Researchers analyzed data from the 2005 National Health Interview Survey that tracked, among other things, how many days of school children aged 6 to 11 missed and the reason for their absence. They found children living with one or more smokers in the home missed one to two more days of school per year on average, than those who lived with non-smokers. The research suggests that families could reduce absenteeism by 24 to 34 % if smoking was eliminated from their households.

The full article on CNN's website can be accessed here: <http://thechart.blogs.cnn.com/2011/09/05/kids-exposed-to-secondhand-smoke-miss-more-school/>.

# NIH-FUNDED STUDY CONNECTS GENE VARIANT TO RESPONSE TO ASTHMA DRUGS

A genetic variant may explain why some people with asthma do not respond well to inhaled corticosteroids, the most widely prescribed medicine for long-term asthma control. Researchers found that asthma patients who have two copies of a specific gene variant responded only one-third as well to steroid inhalers as those with two copies of the regular gene.

This genome-wide association study, funded by the National Heart, Lung, and Blood Institute (NHLBI), part of the National Institutes of Health, analyzed data from over 1,000 people enrolled in five separate clinical trials that studied different steroid treatments for asthma. The study was also funded by the National Human Genome Research Institute and the NIH Pharmacogenomics Research Network. The results appeared in the September 26, 2011 online edition of the *New England Journal of Medicine*.

"This finding helps to explain the genetic basis for the long-standing observation that some people do not respond well to what is a common asthma treatment," said Susan Shurin, M.D., acting director of the NHLBI. "The study illustrates the importance of research examining the relationship between genetic makeup and response to therapy for asthma, and underscores the need for personalized treatment for those who have it."

Asthma is a complex inflammatory disease that affects over 22 million people in the United States and roughly 300 million people worldwide. Many factors can influence how severely the disease affects people and how well they respond to treatments. Poor response to inhaled corticosteroids (ICS) often runs in families, suggesting that genetics plays a role in how people respond to asthma treatments.

The study first conducted a genome-wide scan of the DNA of children enrolled in the Childhood Asthma Management Program and of their parents. The genomic scan uncovered a variant in a gene called *GLCC11* that appeared to be associated with poor ICS response. Study researchers then verified this association in 935 additional peo-

ple with asthma, both children and adults, enrolled in four independent ICS studies. Most of the participants in these studies were white; the results may not be applicable to persons of other ethnicities.

In this study, people carrying two copies of the *GLCC11* variant were more than twice as likely to respond poorly to ICS treatment as participants with two copies of the regular *GLCC11* gene. Those who responded poorly had an average of one-third the level of lung improvement following inhaler treatment as did people with two regular copies of the gene. About 1 in 6 study participants had two copies of the *GLCC11* variant, which is thought to work in conjunction with other genetic and environmental factors to affect response to ICS.

More studies will be needed to understand how *GLCC11* operates in the lungs and to explore whether it contributes to response in patients of other ethnic groups.

This article is available at <http://www.nih.gov/news/health/sep2011/nhlbi-26.htm>. Accessed on 12/1/2011.

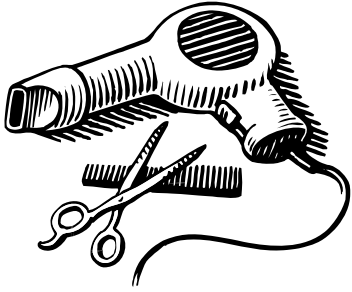


## THE ASTHMA AND ASTHMA MEDICATIONS IN PREGNANCY STUDY

The Asthma and Asthma Medications in Pregnancy study is researching the effects of short-acting and long-acting beta agonists used for the treatment of asthma in pregnancy. If you have asthma and have used a medication for the treatment of asthma during pregnancy you may qualify for the study. Participants will not be asked to take any medication as part of this study. OTIS is also enrolling controls for this study (women who do not have asthma and have not used a medication for the treatment of asthma during their pregnancy). If you are interested in learning more about this study please contact the coordinating center Toll-Free at: 1-877-311-8972 or email us at [otisresearch@ucsd.edu](mailto:otisresearch@ucsd.edu). (Please include your name and phone number to reach you). Additional information can also be found at [www.otispregnancy.org](http://www.otispregnancy.org).



## Update on Brazilian Blowout: Formaldehyde containing products are still available



During the fall of 2010, responding to complaints, [Oregon's Occupational Health and Safety Administration \(OSHA\)](#) tested some hair straightening/smoothing products used in salons and found high levels of formaldehyde in the products. After registering a complaint from a woman in Minnesota who had experienced reactive airway disease after having her hair straightened with a similar product, the MDH issued a [health alert](#) to salon owners about hair-smoothing products that contain formaldehyde on April 20, 2010. These formaldehyde containing products may present a health hazard if workers or customers are exposed. Formaldehyde can irritate the eyes, nose, and skin; increase the risk of asthma and/or allergic reactions; and is linked to an increased risk of some types of cancer. In the past 7 months the Department of Labor and Industry and the Food and Drug Administration (FDA) have taken some actions, but these products containing high amounts of formaldehyde remain available to consumers. On August 22, 2011, the [FDA sent a letter](#) to the CEO of GIB, LLC dba Brazilian Blowout, stating that the FDA has determined that Brazilian Blowout Acai Professional Smoothing Solution is determined to be an "adulterated" and "misbranded" cosmetic. The FDA threatened enforcement action if these two violations were not corrected.

Meanwhile, the Department of Labor and Industry has been increasing inspection and [enforcement](#). Federal [OSHA issued a letter](#) to the CEO of Brazilian Blowout as well, challenging an August 24, 2011, letter sent to salon owners by the CEO of Brazilian Blowout stating that

"all OSHA and independent air-quality tests conducted on the Brazilian Blowout Professional Smoothing Solution, as well as all others in this category, have yielded results well-below even the most stringent of OSHA standards (AL, PEL, STEL)." OSHA disagrees with the safety statement and contends that OSHA has found that workers using Brazilian Blowout Acai Professional Smoothing Solution were exposed to formaldehyde levels that exceeded OSHA's 15-minute short term exposure limit (STEL) of 2 ppm. On September 22, 2011, OSHA issued a revised hazard alert to hair salon owners and workers about potential formaldehyde exposures from working with certain hair smoothing and straightening products.

Finally, the "People of the State of California" filed papers in support of a motion to stop sales of Brazilian Blowout Smoothing Solutions. The hearing that had been scheduled for November 17, 2011, has been postponed until December 16, 2011. Stay tuned on this issue.

A recent study published in the Journal of Occupational and Environmental Hygiene (Volume 8, Issue 12) provides a "*Characterization of Formaldehyde Exposure Resulting from the Use of Four Professional Hair Straightening Products*". To find out more about these products, dangers associated with their use, and protective actions to be taken, see the following LINKS:

[http://www.health.state.mn.us/asthma/documents/BrazilianBlowout\\_KN.pdf](http://www.health.state.mn.us/asthma/documents/BrazilianBlowout_KN.pdf).

<http://www.fda.gov/Cosmetics/ProductandIngredientSafety/ProductInformation/ucm228898.htm>.

[http://www.osha.gov/SLTC/formaldehyde/hazard\\_alert.html](http://www.osha.gov/SLTC/formaldehyde/hazard_alert.html).

## The American Indian Asthma Network!

### New American Indian Asthma Website Provides Networking and Resources

A new interactive asthma website to increase asthma communications and to provide resources and tools was recently launched. Please feel free to visit the website at [www.aiasthma.info](http://www.aiasthma.info) and post any relevant asthma information that you feel could be beneficial to others.

### Minnesota Tribal Asthma Data Profile

In May of this year, the first National Tribal Asthma Data Profile using the Indian Health Service "Datamart" National Data Warehouse was completed. In the past, American Indian health data has been difficult to access. The Tribal Asthma Profile is on the Minnesota Department of Health Asthma Program website at <http://www.health.state.mn.us/asthma/documents/tribalasthmadatareportmn2011.pdf>.



## Health Outcomes Improved in School

Improved Indoor Environmental Quality (IEQ) resulted in a reduction of asthma-related office visits for children in six school districts in Connecticut. A statewide interagency strategy was used to implement a "Tools for Schools" program in over 67% of Connecticut public schools. The collaborative team approach to improving IEQ included participation from school staff, parents, students, nurse, principal, and the head custodian. The most compelling health improvement came from an elementary school where improvements achieved by the "Tools for Schools" program resulted in a reduction of asthma-related office visits from 463 yearly office visits to 82 over a four-year period. Other health outcomes included decreases in all of the following: IEQ-related health complaints, reported cases of respiratory-related illnesses, asthma-related office visits, and absenteeism.

These successes are highlighted in a paper which provides additional information about the intervention model used to improve IEQ in CT schools.

Foscue, K., Harvey, M. *A Statewide Multiagency Intervention Model for Empowering Schools to Improve Indoor Environmental Quality*. Journal of Environmental Health, Volume 74, No. 2. September 2011.



### Asthma Discussion Group for MAC

The ALA Asthma Discussion Groups will continue every month on the 3<sup>rd</sup> Thursday from 8:15 – 9:45 a.m. with the next one on Thursday, December 15, at ALAMN in St. Paul. There will be a format change starting in December, 2011, and continuing through 2012. The discussion groups are a region-wide webinar that features 60 minutes of an educational presentation followed by 30 minutes of discussion. To help facilitate better discussion you are invited to attend in person at the ALAMN (490 Concordia Ave St. Paul, MN). After the presentation concludes they will sign off from the webinar and hold a brief meeting followed by a discussion. If you currently do not receive the Asthma Discussion Group invites or the monthly asthma e-blast, please email [Cynthia.isacson@lungmn.org](mailto:Cynthia.isacson@lungmn.org).

### Environmental Improvements for Children's Asthma: New Data on Quality of Life Outcomes and Return on Investment

The evaluation of the Environmental Improvements for Children's Asthma (EICA) project indicated significant improvement on asthma-related health service utilization, quality of life outcomes, and return on investment. While other studies have shown positive results from home-based environmental assessment and modifications for children with asthma, this is the first to measure an impact on symptom burden and report actual return on investment. <http://action.lungusa.org/site/DocServerEnvironmentalImprovementsforChildrensAsthmaFlier.pdf?docID=9421>.

### Archived Spirometry Trainings

A reminder that three archived **spirometry webinar trainings** are available online at <http://www.lungusa.org/associations/states/minnesota/events-programs/mn-asthma-coalition/asthma-trainings--interventions/spirometry-trainings.html>. The trainings cover three topic areas including a basic overview, differentiating asthma and COPD, and masqueraders of asthma. Spirometry is an important step in diagnosing asthma. The American Lung Association in Minnesota offers a full day program on the implementation and interpretation of spirometry. For more information contact [jill.heins@lungmn.org](mailto:jill.heins@lungmn.org).



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651-201-5909

MN Relay Service TDD/TTY

651-201-5797.

To receive this newsletter electronically, go to:

<http://www.health.state.mn.us/divs/hpcd/cdee/asthma/Newsletter.html>.

Link to -Subscribe to Breathing Space.

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**Questions about lung health?**

Call 1-800-548-8252

American Lung Association Call Center

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