

Asthma in North Carolina

What is Asthma?

Asthma is a chronic disease of the respiratory system characterized by episodes of tightening of the muscles around the airways in the lungs and swelling of the bronchial tubes (inflammation). It is one of the most common long-term diseases of children, but adults have asthma, too. Asthma causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. If you have asthma, you have it all the time, but you will have asthma attacks only when something bothers your lungs.

A variety of factors can trigger an asthma episode or attack.

Asthma is the most common chronic disease in school aged children.

Asthma, a major chronic illness among school-age children, is the leading cause of school absenteeism. Asthma has consistently been the leading chronic health condition reported by N.C. public schools, affecting 92,838 students in the 2009-2010 school year.¹



Common Asthma Triggers

General Irritants

- Strong chemicals, aerosol sprays, cleaning products, pesticides
- Strong odors (air fresheners, colognes/ perfumes)
- Environmental tobacco smoke (secondhand smoke)

Allergic Triggers

- Mold and Mildew
- Warm-blooded animals (gerbils, cats, dogs, etc.)
- Pests (cockroaches, mice and lady bugs)
- Dust mites in stuffed animals, pillows, mattresses, comforters, and carpets
- Pollen (flowers, grasses, trees, weeds)

l out of every 10 North Carolina children has asthma



"**Asthma control predicts quality of life**, even after taking into account asthma severity and lung function."⁶

The Burden of Asthma in North Carolina

- More than 900,000 (12.6%) adults in North Carolina have been diagnosed with asthma, and almost 535,000 (7.5%) of them still have it.²
- About 369,000 (16.8%) children in North Carolina have been diagnosed with asthma. Almost 226,000 (10.3%) still have it.³
- In 2009, there were 10,986 hospitalizations due to asthma in North Carolina, accounting for more than \$132.5 million in total charges.⁴
- Between 1999 and 2009, asthma caused more than 1000 deaths in North Carolina. Twice as many of those deaths were among adult women than in men.⁵
- Almost a third of children in North Carolina visited an emergency department or urgent care center in the past year because of their asthma.





Children and Adults with Lifetime and Current Asthma, N.C. and U.S., 2009 20 15.5 15 3.8 12.9 13.1 Lifetime Percent 10.1 9.6 10 Asthma 78 77 Current 5 Asthma 0 NC Children **US Children NC Adults US Adults**

Sources: NC Children: N.C. State Center for Health Statistics, 2009 N.C. Child Health Assessment and Monitoring Program. US Children, NC Adults, US Adults: Centers for Disease Control and Prevention, 2009 National Health Interview Survey (NHIS) Data.

What can you do?⁷

Because asthma can be controlled, it is most important to work on preventing attacks.

Keep a clean home.

- Make sure that your home is free of dust, mold, smoke, and other potential triggers.
- Vacuum often—HEPA (High Efficiency Particle Air) filters remove dust best.
- Keep foods stored in tightly sealed containers to avoid attracting cockroaches and rodents by keeping food in tightly sealed containers.
- Clear crumbs, drips, spills, and dirty dishes immediately.
- Identify and quickly fix water leaks in your home.

Keep people with asthma away from dust, dust mites, and smoke.

- Use zippered "allergen resistant" mattress and pillow covers to keep dust mites out of sleeping spaces.
- Keep pets outdoors or away from sleeping areas; clear hairs from carpets and furniture.
- Quit smoking, or smoke only outside of your home and car. Always keep tobacco smoke away from children.
- Change bed sheets often.
- Keep people with asthma out of the room while vacuuming or dusting.

Get medical advice and follow the doctor's instructions.

- Get medical attention for breathing problems.
- Get emergency medical care for bad attacks of shortness of breath or wheezing.
- Take all prescribed medication, either to prevent attacks or to lessen the symptoms.







Ten key tips to controlling and managing asthma⁸

- 1. Visit your doctor every six months, even if you think your asthma is under control.
- 2. Be sure to use your asthma medicines correctly.
- 3. Always use a holding chamber (or spacer) with your metered dose inhaler.
- 4. Make sure you always have access to your asthma medicines.
- 5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year. In 2008, 68.3% of North Carolina adults did not obtain an asthma management plan from their doctor.⁹
- 6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
- 7. Ask your doctor about tests to determine if you have allergies to specific triggers.
- 8. Avoid exposure to tobacco smoke.
- 9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
- Be sure you get a flu shot every year (available in the fall).

For more information, please visit the NC Asthma Program's website at **www.asthma.ncdhhs.gov** or call the Asthma Program at **(919) 707-5213** for additional assistance.



REFERENCES

- NC Annual School Health Services Report: 2009-20010. (www.nchealthyschools. org/docs/data/reports/2009-10eoy.pdf) Accessed July 11, 2011.
- North Carolina Behavioral Risk Factor Surveillance System (BRFSS), State Center for Health Statistics, N.C. Department of Health and Human Services (2010).
- North Carolina Child Health Assessment and Monitoring Program (CHAMP), State Center for Health Statistics, N.C. Department of Health and Human Services (2010).
- Hospital Discharge Data (Provisional), State Center for Health Statistics, N.C. Department of Health and Human Services, (2009).
- 5. Mortality Data, State Center for Health Statistics, N.C. Department of Health and Human Services, (2009).
- Chen, H. et al. "Assessing the impact of asthma control on quality of life in patients with severe or difficult-to-treat asthma." Presented at 2006 CHEST Annual Meeting, October 23, 2006.
- About Asthma. (http://hud.gov/offices/lead/healthyhomes/asthma.cfm) Accessed December 21, 2009.
- Asthma Fact Sheet. (www.betterasthmacare.org/files/AsthmaFactSheet_ V5_1 02909.pdf) Accessed December 21, 2009.
- North Carolina Behavioral Risk Factor Surveillance System (BRFSS), State Center for Health Statistics, N.C. Department of Health and Human Services (2008).

This publication was supported by Grant/Cooperative Agreement Number U59EH000518 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.



State of North Carolina | Beverly Eaves Perdue, Governor Department of Health and Human Services | Lanier M. Cansler, Secretary Division of Public Health | North Carolina Asthma Program www.ncdhhs.gov

N.C. DHHS is an equal opportunity employer and provider. 8/11