

Healthy Air Matters

A PUBLICATION OF THE AMERICAN LUNG ASSOCIATION OF NEW ENGLAND

Own Your Air.

**American Lung Association
of New England launches
new *Own Your Air* Initiative**

Sleep: School Daze

**Air Pollution's Assault on
American Architecture**

Back to School with Asthma



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The American Lung Association of New England has offices in

- East Hartford, Connecticut
- Augusta, Maine
- Waltham and Springfield, Massachusetts
- Concord, New Hampshire
- Providence, Rhode Island
- Williston, Vermont

and serves the six New England states.

Contributors to Healthy Air Matters are from ALANE staff unless noted otherwise.

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WARNING: The air you breathe
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Own Your Air.

OwnYourAir.org Launched

Warm weather is New England's reward for winter. Yet, we now know that the air we breathe when we are outside may be hazardous to our health.

THIS PAST MARCH, THE U.S. Environmental Protection Agency (EPA) changed its outdoor air quality standards. But, according to its own panel of scientists, the new standards are not strict enough to protect public health. The EPA scientists, along with other health and medical organizations, including the American Lung Association, are calling for stricter standards. What this means is that when the EPA tells us that air quality is "moderate," it is actually unhealthy. For example, last year in New England during ozone season, there were 54 days that the EPA said were unhealthy. If the stricter standards had been in place, that number would have jumped to 98.

We used to think that bad air quality had a negative impact only on those with lung disease. Scientific studies now prove that breathing bad air for a short amount of time can be dangerous for everyone. Scientists actually refer to the effects of bad air on the lungs as the "other sunburn." When you are short of breath outdoors or your lungs feel like they are burning for no reason, chances are your lungs are being "burned" by ozone pollution.

We often blame Midwestern states for our pollution, yet in a typical New England

state, as much as 40 percent of our pollution comes from cars and other local polluters.

Few people realize that lung disease claims about 335,000 lives each year in the U.S. and is the third leading cause of death. In New England, that number is 20,000. In addition, New England has the highest asthma rates in the nation.

Just a decade ago, who could have predicted that smoking bans would be in place today in most U.S. states and in many foreign countries? Then we considered secondhand smoke a nuisance. But, the scientific evidence proved that secondhand smoke is dangerous even with limited exposure. The American Lung Association and its partners educated the public and public policymakers about this new-found evidence and ultimately changes were made in laws and in lifestyle. Our challenge today is to educate the public and public policymakers about the health impact of breathing bad air.

OwnYourAir.org was designed to do just that. If you visit this new website, you can learn how to protect yourself and your family on bad air quality days, get tips for improving air quality, and get the daily air quality rating.

The air we breathe belongs to everyone.

As owners of the air, we are empowered to take those steps necessary to protect it, personally and as a community. This includes taking responsibility for keeping our air clean and healthy and assuring that others are not "trespassing" on it with health-damaging pollution. Visit **OwnYourAir.org** today.



Free Decals Available

Display this reusable decal in support of healthy air and healthy lungs for all. It shows your commitment to making environmentally sound decisions in your everyday life. And, it encourages others to do likewise.

Request your free decals
at OwnYourAir.org

School Daze: A Wake-Up Call

Think your teen is lazy? Maybe not...

AFTER PUBERTY, TEENS' DAILY waking and sleep cycles, or circadian rhythms, shift into a delayed phase. Indicators of the circadian rhythms such as temperature, hormone secretion and melatonin production all start and end later in the day than when they had prior to puberty. Therefore, teens' body clocks make them go to sleep later and wake later than younger children. However, school start times are not in alignment with this shifted body clock. In addition, teenagers require more sleep than younger children, typically about 9.25 to 9.5 hours nightly.

Since high school students typically start school between 7:00 and 8:00 a.m., they are driving to school and attending classes when their body says they should still be asleep. Also, they typically are required to take standardized testing (e.g. SATs) in the early morning, which is their worst time for performance. Students who are tired also have an increased likelihood of using stimulants such as caffeine and nicotine.

For years, teachers have reported that students in the first and second periods of the day are typically weary and bleary-eyed. Excessive sleepiness is associated with reduced

short-term memory and learning ability, negative moods, inconsistent performance, poor productivity and loss of some forms of behavioral control. Daily waking and sleep cycles influence cognitive skills, social functioning and emotional health. High school students on the roads in the early morning hours are also a safety issue. Each year, 1500 people in the United States die from sleep-related auto accidents. Drivers under the age of 25 cause more than half of these fall-asleep crashes.

To accommodate teen sleep needs, school districts around the country are changing high school start times to later in the morning. The most studied school district is the Minneapolis Public School System, which has experienced improved grades, a decrease in student depression, improved behavior, better attendance and increased continuous enrollment. To achieve this and avoid a financial impact, school districts have flip-flopped high school and elementary school start times.

The Minneapolis experience shows that this actually works well for working parents. They now require only afternoon and not morning and afternoon day care for

younger children. Police statistics indicate that teen crime most often occurs between school dismissal and the time parents arrive home from work. The later dismissal time for teens minimizes that time period. Also, since sleep patterns for young children are not delayed, they typically perform better in the early morning, which is now when they are in school.

Some question whether teens will actually go to bed later since they will be able to sleep longer in the morning. While some students may do just that, the research shows that switching to later school start times did not alter bed times.

According to James B. Maas, MD of Cornell University, a leading expert on the topic, "sleep, in essence, is food for the brain." Tiredness should not be confused with laziness. All teens should have the right to learn in an optimum environment. Rather than the "early to bed . . ." adage, the new adage should be, "Wake up later and your grades will be greater."

The National Institutes of Health have identified teens as a population at high risk for problem sleepiness.



Studies have shown that a later start for high-schoolers may lead to improved academic performance.

Air Pollution's Assault on American Art and Architecture

Air pollution can harm our lungs and our Earth, but what many don't realize are the affects of air pollution on art and architecture.

THE AFFECTS OF AIR POLLUTION ON buildings have been noticed since the beginning of the Industrial Revolution over 200 hundred years ago. Buildings that had been standing in all types of weather for thousands of years suddenly began to decay rapidly. All things considered, the United States is still a young nation, and as such, our oldest architecture has been assailed since its construction.

While art galleries and museums go to great lengths to preserve the artwork in their care through carefully controlled humidity, temperature, and lighting, air pollutants can greatly affect a piece as it enters these controlled spaces. Air pollutants such as sulfates, carbon monoxide, carbon dioxide, and even calcium can destroy paintings, sculptures, and furniture over time. Despite varnishes on paintings—a common practice to protect the painting and give colors more

vibrancy—the air pollutants in New England's air are besieging our American works of art. Additionally, we only ever see about 10 to 20 percent of any museum's holdings. The other pieces owned are stored, sometimes in large warehouses that can never match the environmental control standards of the galleries themselves. Air pollutants eat away at stored works of art we may never get to fully appreciate as they wait to be exhibited.

In addition to fine art, our architecture is at risk from air pollution, as well. As the oldest settled part of the United States, New England is home to some of the oldest examples of Early American architecture and statuary. From the Old North Church in Boston where the warning lanterns were hung before Paul Revere's historic ride, to the majestic Capitol in Hartford, our buildings are assaulted daily by air pollution. The effects of the pollutants in air affect mainly

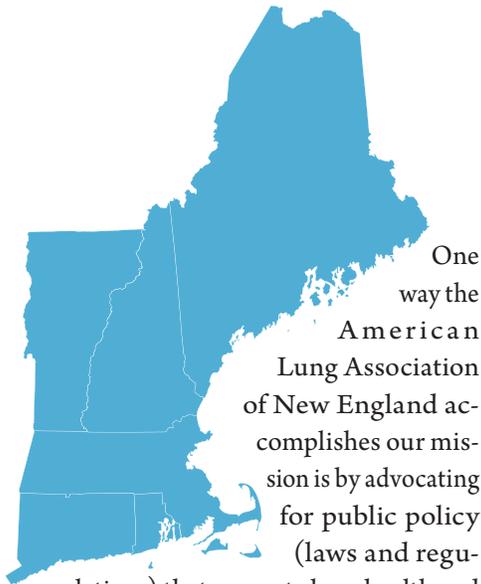
limestone and marble, which then require almost constant upkeep. They also tarnish and corrode metals, cause paint to peel, and wood to soften and rot. Copper and bronze may be visually pleasant when they turn to pale green, but that green is metal corrosion in its most visible form. It is sulfur dioxide, carbon dioxide, and particulate pollution that eat away at these surfaces. Damaging color, surface, and structural integrity, these pollutants degrade art and architecture inside and out.

The destruction, however slow it may appear, of our American works of art—indoors and out—highlights the necessity for stricter air pollution standards in New England. With routinely failing air quality grades, New England needs to tighten pollution restrictions to preserve our health as well as our artistic heritage.

The Connecticut State Capitol building in Hartford shown after extensive renovation in the 1980s.



New England Legislative Summary



One way the American Lung Association of New England accomplishes our mission is by advocating for public policy (laws and regulations) that promote lung health and prevent lung disease. Each year we are actively involved in promoting legislation and regulations that will improve the health of people in our New England states. Our efforts combine the talent of volunteers with that of our paid staff.

While most of our New England states struggled with serious budget challenges, we saw a number of legislative successes that will reduce lung disease now and in the future. Much of our legislative agenda

focused on supporting healthy air measures. Below are some of our key efforts:

NEW HAMPSHIRE • We were successful in passing a bill that regulates high-polluting outdoor wood boilers. The state receive dozens of air quality complaints from neighbors. We now have the system in place to assure that the devices are not a health hazard to others. We also saw passage of a law creating a School Air Quality Commission to assure that the air in schools is healthy.

VERMONT • Despite a tight budget, the Tobacco Prevention Program level was funded. The State also banned internet sales of tobacco and raised the age to 16 for those selling tobacco.

MAINE • Smoking in cars with children present is now banned. Maine became the first state to ban the sale of flavored cigarettes and cigars. A state building code that includes measures to protect indoor air quality was approved. A number of laws were passed to make wind power development easier.

MASSACHUSETTS • The Massachusetts legislature is still in session with many of our key bills still alive. These include a bill

to ban vehicle idling on school grounds, one to support better management of asthma, and a bill to improve lung cancer detection and treatment. The Commonwealth did increase the tobacco tax by \$1 a pack and gave a modest boost in funding to tobacco prevention efforts. In non-legislative action, we are involved in supporting regulation of outdoor wood boilers and opposing a biomass energy project in Western Massachusetts.

CONNECTICUT • The State will allow more money to be spent on tobacco prevention. There is also progress being made on banning smoking in casinos. Bills to ban smoking in cars with children present and to reduce vehicle idling did not pass.

RHODE ISLAND • A tax loophole was closed and small cigars will be taxed just like cigarettes. Parts of the Governor's health care reform initiative were approved. These include requirements to establish a Health Care Strategic Plan, a Health Care Quality database and a Chronic Care Management Program.

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Autumn in New England: The Colors of Pollution?

Carbon dioxide pollution may be responsible for the annual onslaught of leaf-peepers.

QUESTIONS ABOUT THE NATURAL world are so often answered by new and exciting developments in the world of science that a simple truth is often forgotten: scientists still do not know what causes the leaves in autumn to change from their summery green to the vibrant and beautiful reds, oranges, and yellows that characterize our New England autumn.

That is not to say there are not a number of theories floating around the scientific community about why these changes occur. One theory is that the carbon dioxide (CO₂) that our deciduous trees (trees that shed

their leaves) have spent the warm months filtering from our air finally causes a chemical change to the chlorophyll. Chlorophyll is the naturally occurring chemical that, among other things, gives plant life its green color. The theory is that the more CO₂ that gets built up in the leaves and tree itself, the brighter the colors of the leaves are when fall arrives.

Now consider what air pollution does to the structure of the leaves themselves. A recent study found that air pollution causes the size of the stomatal pores in each leaf to shrink. Think of stomatal pores just like your

own pores: they let air and pollutants out of the “body” of the plant through its skin, or its leaves. Stomatal pores, let the CO₂ out of the leaves. As pollution decreases the size of these pores, more CO₂ is trapped inside the leaves.

If the theory that it is, at least in part, a build-up of CO₂ that creates the colorful changes in leaves to occur, could it be that pollution has a hand in making our New England fall so beautiful? And if this is true, would we all look at fall the same way if we knew those gorgeous hues of red, orange, and yellow are the colors of pollution?

American Lung Association partners with People’s Power & Light to bring renewable energy to Rhode Island Households

New England GreenStart, a program of the non-profit People’s Power & Light (PP&L), is a way for National Grid customers in Rhode Island and Massachusetts to choose renewable energy. When you sign up, your household electricity usage will be matched to local renewable resources including solar, wind, biomass, and small hydroelectric plants from New England.

New England GreenStart sources in Rhode Island include the Portsmouth Abbey wind turbine and the solar panels on Scituate High School.

Renewable energy, having few to no emissions, protects the health of our lungs. When you choose green power, you can breathe easier knowing that you are reducing the amount of smog and soot in our air. Support the mission of the ALA by making the switch to green power for your home today! Go to ripower.org to sign up for New England GreenStart.



As an added bonus, select “American Lung Association” from the pull-down menu on the sign-up page, and a donation will come back to the American Lung Association from PP&L.

American Lung Association Offers Parents Seven “Back to School” Tips for Kids with Asthma

Your child’s inhaler may soon be unavailable at your local pharmacy.

NEARLY 7 MILLION CHILDREN headed back to school this fall have asthma. Annually, school aged children with asthma miss about 13 million days of school making asthma related illness one of the most common reasons kids are absent from school. New England has the highest rate of childhood asthma at 9.3 percent, compared to 7.1 percent nationwide. The American Lung Association of New England offers parents a seven-step checklist to ensure a safe and healthy school year for children who suffer from this often debilitating disease.

To minimize asthma’s grip on this school year ahead, parents must first be aware that per government regulation, manufacturers are phasing out production of a common type of albuterol inhaler, often called a CFC inhaler. By December 31, 2008, CFC inhalers will not be available to the consumer and will be replaced by an HFA inhaler.

The FDA has found that HFA inhalers are safe and just as effective as their CFC counterparts. One significant difference is that HFA inhalers do not contain ozone-depleting chemicals found in CFC inhalers.

Some kids might find their new inhaler has a slightly different taste or feel. Since all HFA inhalers do not contain the same inactive ingredients, parents may have their children try more than one kind. It is important to take care of this now and not wait until the end of the year.

It is also important for parents to confer with their child’s doctor to ensure their asthma prescriptions are current and are best managing the child’s symptoms. It is important this be done at least once a year. In some cases, pharmacies will not be able to simply substitute the new HFA inhaler for existing CFC inhaler prescriptions.

In preparation for the school year ahead, the American Lung Association of New England also urges parents who have children with asthma to complete the following checklist:

1. **SCHEDULE ASTHMA CHECK-UP DOCTOR’S APPOINTMENT.** Even if your child’s asthma is well managed, scheduling a check up with your pediatrician is critical to ensuring your child’s asthma continues to be effectively controlled. This is also an opportunity to evaluate medications and physical activity restrictions.
2. **CONFIRM MEDICINES ARE UP-TO-DATE AND FILL PRESCRIPTIONS.** If your child uses an inhaler, ensure you have a current prescription for an HFA inhaler. Check your medicine cabinet to make certain your child’s asthma prescriptions have sufficient refills available and have not expired.
3. **KNOW ABOUT PRESCRIPTION ASSISTANCE SERVICES.** No one should have to do without their asthma medications because of financial need. Two organizations are available to help. The Partnership for Prescription Assistance can be reached by calling 1-888-4PPA-NOW. Rx Outreach also provides information on their website: www.rxoutreach.com.
4. **ASTHMA ACTION PLAN.** All students with asthma should have a written Asthma Action Plan that details personal information about the child’s asthma symptoms, medications, any physical activity limitations and provides specific instructions about what to do if an asthma episode does not improve with prescribed medication.
5. **VISIT YOUR CHILD’S SCHOOL NURSE AND TEACHERS.** All of the student’s teachers, coaches, as well as the school nurse, should have a current copy of their Asthma Action Plan. Discuss with your child’s teachers specific triggers and typical symptoms so that they can be prepared to effectively assist your child should an asthma episode occur during the school day.
6. **ADVOCATE FOR YOUR CHILD.** It is also important to learn if your child’s school allows students to carry and independently administer their asthma medication. Some schools require students to carry a note from their doctor. Learn what steps need to be taken to have your child carry and use their inhaler if recommended by their doctor.
7. **KNOW YOUR SCHOOL’S EMERGENCY PLAN.** Make certain your child’s school knows how to contact you in case of an emergency. Parents should confirm that school staff, including after-school coaches and bus drivers, have been trained in responding to asthma emergencies.

For additional information on asthma and children, visit lungne.org or call 1-800-LUNG USA.

Maine Native Receives National Award



Arthur Cerullo, Esq., of North Yarmouth, ME received the 2008 American Lung Association Volunteer Excellence Award. Cerullo has been a volunteer for the American Lung Association since 1989 when he began as a fundraising cyclist in the Trek Across Maine. Since, he has served as a member of the Board of Directors and was the first trekker to serve as board chairman.

Cerullo is also a National Assembly Member At Large, and was a key figure in the formation of the American Lung Association of New England. In addition, he was an active participant on the Community Wind Feasibility Study advisory group that provided oversight to the first study of its kind in Maine. His exemplary leadership and legal skills have guided the organization for decades on both the state, regional and national levels.

The Volunteer Excellence Award is a national award presented annually to an exemplary volunteer of the American Lung Association.

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February 7, 2009 at One Boston Place
Boston, Massachusetts

CLIMB PROVIDENCE

February 28, 2009 at One Financial Plaza
Providence, Rhode Island

CLIMB WORCESTER

March 8, 2009 at Sovereign Bank Glass Tower
Worcester, Massachusetts

CLIMB SPRINGFIELD

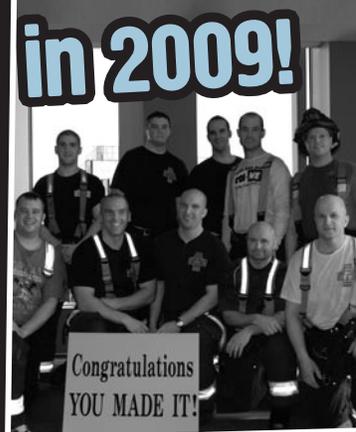
March 14, 2009 at One Monarch Place
Springfield, Massachusetts

QUEEN CITY CLIMB

March 21, 2009 at Hampshire Plaza
Manchester, New Hampshire

TACKLE THE TOWER AT HARTFORD 21

March 28, 2009 at Hartford 21
Hartford, Connecticut



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climbofyourlife.org

AMERICAN LUNG ASSOCIATION
of New England

The Transition to CFC-Free Inhalers for Asthma Sufferers



MANY PEOPLE WHO USE INHALERS containing the drug albuterol will need to change their inhalers. Manufacturers are phasing out one type of albuterol inhaler, called a CFC inhaler, and increasing production of another, called an HFA inhaler. If you use an albuterol inhaler, here's what you need to know.

What is albuterol?

Albuterol is a type of drug known as a short-acting beta2-agonist. It quickly relaxes and opens airways and relieves asthma symptoms. This is a quick-relief medicine that only lasts about four hours. It does not prevent asthma attacks. Some people with chronic obstructive pulmonary disease (COPD) also use albuterol inhalers.

Why are CFC inhalers being phased out?

The U.S. Food and Drug Administration (FDA) has told makers of albuterol inhalers that they must stop using the ozone-depleting propellants called chlorofluorocarbons (CFCs), which send albuterol into the lungs. Manufacturers have already begun to make or ramp up production of CFC-free inhalers, also called hydrofluoroalkane (HFA) inhalers, in advance of the December 31, 2008 deadline.

This decision resulted from the United States' participation in the Montreal Proto-

col, a 1987 international treaty to eliminate the production and consumption of ozone-depleting chemicals. The American Lung Association led the successful effort to have metered-dose inhalers (MDIs) exempted from the Montreal Protocol in 1994, to give inhaler manufacturers time to develop CFC-free devices and provide an adequate transition time for patients and doctors.

What should I do?

Some people have already switched over to the new HFA inhalers, either because they want to get comfortable with the new product or because their CFC inhaler is no longer available. Since everyone who uses an albuterol inhaler will have to stop using CFC inhalers by the end of 2008, now is a good time to speak with your physician about making the change. To get an HFA inhaler, you'll need your doctor to write a new prescription. Your pharmacist can't simply substitute the new inhaler for your existing CFC inhaler prescription.

The FDA has found that HFA inhalers are safe and effective, and patients should not find any significant differences from their CFC inhalers. But it is possible that some patients might find that the new inhalers have a slightly different taste or feel. Since all HFA inhalers do not contain the same inactive ingredients, you may want to try out more than one kind in advance of the deadline to find the best one for you.

Will I see a price difference?

There can be a significant price difference between the CFC inhalers and the new HFA inhalers, particularly if you currently use a generic CFC inhaler. The HFA inhalers cost from \$30 to \$60, compared with \$5 to \$25 for a generic CFC inhaler. The price difference

is most likely to have an impact on patients without health insurance. "Depending on your insurance, these new inhalers may be more expensive, but our hope is that as more people move to the CFC-free delivery method that the price will come down," says Norman H. Edelman, MD, Chief Medical Officer of the American Lung Association.

If you have questions about the transition to HFA inhalers or to learn about assistance programs that may help you pay for your prescriptions, including a coupon offer, call the American Lung Association Lung HelpLine at 1-800-LUNG USA, and press "2" to speak to a nurse or respiratory therapist.

How can I reduce my dependence on albuterol inhalers?

Since albuterol inhalers are not meant to control asthma for the long term, if you are using your inhaler more than two to three times a week, it means your asthma is not being properly controlled.

"If you are using your albuterol inhaler more frequently than this, talk to your doctor about taking inhaled steroids, which are recommended by the National Institutes of Health for controlling asthma," says Dr. Edelman. Inhaled steroids reduce the airway swelling that makes asthma attacks more likely.

It is important to see your doctor regularly if you have asthma. Over time, you may need to increase or lower your dose of medicine, or change the type of medicine you take. Work with your doctor to find the best treatment to control your asthma.

Event Scrapbook

2008 WALKS AND CLIMBS



Above: Participants engaged in American Lung Association of New England **Healthy Air Walks** and **Climb of Your Life** stair-climbs from throughout the region. To get involved yourself, find the event(s) of your choice on the right and contact us for more information at lungne.org or 1-800-LUNG USA. See you there!

Thanks to our participants!

American Lung Association of New England —CALENDAR OF EVENTS—

Healthy Air Walks

MASSACHUSETTS

May 2, 2009

Forest Park, Springfield

May 9, 2009

Artesani Park, Boston

RHODE ISLAND

May 30, 2009

Slater Memorial Park, Pawtucket

CONNECTICUT

May 30, 2009

Riverside Park, Hartford

VERMONT

September 19, 2009

Battery Park, Burlington

NEW HAMPSHIRE

October 3, 2009

NHTI Community College, Concord

Stair Climbs

RACE UP BOSTON PLACE

February 7, 2009 at One Boston Place

Boston, Massachusetts

CLIMB PROVIDENCE

February 28, 2009 at One Financial Plaza

Providence, Rhode Island

CLIMB WORCESTER

March 8, 2009 at Sovereign

Bank Glass Tower

Worcester, Massachusetts

CLIMB SPRINGFIELD

March 14, 2009 at One Monarch Place

Springfield, Massachusetts

QUEEN CITY CLIMB

March 21, 2009 at Hampshire Plaza

Manchester, New Hampshire

TACKLE THE TOWER AT HARTFORD 21

March 28, 2009 at Hartford 21

Hartford, Connecticut

Planned Giving

Q What is planned giving and how can it help the American Lung Association of New England?

A Planned giving is a process, often executed with the assistance of your estate planning or tax advisor, by which you can make a gift to the American Lung Association using a variety of methods that may help you meet both your personal financial goals and fulfill your charitable goals.

A planned gift can meet a wide range of planning needs such as providing you and/or another person with payments for life through a charitable gift annuity, reducing your taxable estate through a charitable trust, or ensuring the continuation of the programs you care about through a gift in your will.

Find out more at www.lungusa.org/donate.

Thank you. Your gift helps us all breathe easier.



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