LAUSD District Nursing Asthma Program

The Mission of the LAUSD Nursing Services Asthma Program is to improve the health and academic achievement of students with asthma by reducing asthma exacerbation through the education of students, parents and staff on the prevention and management of asthma.

Asthma in the Los Angeles Unified School District

- Asthma is the leading cause of school absenteeism from a chronic disease
- An estimated 63,000 students in LAUSD have asthma

LAUSD Asthma Program

- Funded by the Center for Disease Control and Prevention (CDC), The Merck Childhood Asthma Network (MCAN) and the Environmental Protection Agency (EPA)
- Using a Coordinated School Health model, the Asthma Program collaborates with Schools, Teachers, PSA, TUPE, School Mental Health and Health Education Programs to improve asthma management and student achievement
- Provides asthma management education and training to students, schools and parents
  - Tools for Schools, the EPA’s indoor air quality program
  - Open Airways, American Lung’s asthma management program
  - LAUSD asthma management curriculum and training
- Provides case management for 500 at risk students per year
- Provides referrals for medical treatment
- Provides leadership for the Asthma Coalition of Los Angeles
- Partners with LA Care and Community Clinics to facilitate medical care and the use of Asthma Action Plans
- Partners with the Department of Health and the Allergy and Asthma Foundation of America (AAFA) to provide medical treatment via the Breathmoible, a mobile school based clinic
- Increases public awareness through PSAs and www.asthmala.com

LAUSD Asthma Program
213-765-2800   www.asthmala.com
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Susan LaCombe 213-765-2812  susan.lacombe@lausd.net

Raymond Kohl 213-765-2807  raymond.kohl@lausd.net
Asthma and School-Aged Children

- Most common chronic disease for children under 18 years old
- 80-90% of the students with asthma also have exercise-induced asthma (EIA)
- #1 cause of school absenteeism due to chronic disease
- Asthma-related deaths are rare among children but increase with age
Estimated number of students in LAUSD with asthma

63,000
Estimated cost of asthma in LAUSD

63,000 students $\times 2.6^\ast$ days $= 163,800$ missed days of instruction per year

*$\ast$The Burden of Asthma in California 2007
Estimated cost of asthma in LAUSD

163,800 missed days × $30.80 ADA =

$5,045,040,040 in lost revenue to LAUSD per year
Exercise and Asthma

- ANYONE who has asthma has the potential for exercise-induced asthma
- Faster, deeper breathing triggers asthma symptoms
- Each student will have a different level of tolerance to exercise
- Highly strenuous conditions can provoke asthma symptoms in some students – even with optimal conditions
Exercise and Asthma

- EIA may begin during exercise but most typically it begins \textit{after} exercise
- Symptoms typically start after 6-8 minutes after vigorous exercise
- Can last 30-60 minutes

☆ Keep in mind: symptoms may occur again beginning 12-16 hours after the exercise.
When our airways are open we don’t think about breathing.
What Happens During an Episode of Asthma?

Illustrations reprinted with permission from The Cleveland Clinic, copyright 2002

1) The lining of the airways becomes swollen (inflamed)

2) The airways produce a thick mucus

3) The muscles around the airways tighten and make airways narrower
What is Asthma?

A disease that:
- Is a life-long (chronic) breathing problem
- Produces recurring episodes of breathing problems
  - Coughing
  - Wheezing
  - Chest tightness
  - Shortness of breath
- Waking at night with asthma symptoms (a key marker of uncontrolled asthma)
- Cannot be cured, but can be controlled
What causes asthma symptoms?

- Common triggers include:
  - Exercise
  - Heavy air pollution/ozone smog days
  - Dust mites
  - Pets
  - Mold
  - Weather Changes
  - Viruses
  - Strong odors
  - Cigarette smoke
  - Pollen
  - Cockroaches
  - Chalk dust
  - Food allergies
  - Strong emotions
Tools For Schools Program

- LAUSD Board of Education passed a resolution calling for the adoption of the EPA Tools for Schools Program
- 250 school nurses and teachers have been trained to implement the program
- A grant from the EPA enables us to pay $250 stipend to program coordinator at each school site
- 250 schools have completed the program with positive results
Two Types of Medications

- **Inhaled Bronchodilators** (quick acting) type of medication you will see in schools (Albuterol Most Common)
  - Used to pre-medicate
  - Used to stop an asthma episode

- **Anti-inflammatory** (long-term controller)
  - Used daily as a preventive medication
  - Used at home
Don’t Get Stopped By Asthma, Get A Plan!

The National Asthma Education and Prevention Program recommends that everyone with asthma should have a written Asthma Action Plan.
“The Expert Panel recommends that physical activity at play or in organized sports is an essential part of a child’s life, and full participation in physical activities should be encouraged.”
Obesity and Asthma

- Overweight children have two times the risk of developing asthma
- Extra weight compresses airways
- Exercise is important!!
Children with Asthma Can Play Sports!

Some of today’s world class athletes have Exercise-Induced Asthma

- Olympic gold medalist swimmers, Amy Van Dyken and Tom Dolan
- Track and field star, Jackie Joyner-Kersee
- Diver, Greg Louganis
- Football players, Chris Draft and Jerome Bettis
- Dennis Rodman
JOIN THE TEAM AND TACKLE ASTHMA

Asthma is the #1 cause of school absenteeism due to a chronic disease.

LAUSD Asthma Program
213-765-2800
www.asthmala.com

Chris Draft Family Foundation
404-525-0593
www.chrisdraftfamilyfoundation.org
CHILDREN ARE MORE SUSCEPTABLE TO AIR POLLUTION THAN ADULTS.

Adults breathe about 35 pounds of air per day – Children breathe almost twice that much!

A child doing the same exercise or activity as an adult takes in 20 – 50% more air – and AIR POLLUTION - than the adult.
Role of the PE Teacher

- Identify students with asthma
- Be aware if there is an Asthma Action Plan
- Know if any PE modifications are needed
- Allow use of appropriate ordered medication
- Ensure ASTHMA medication is available
- If possible, on cold or windy days, have class indoors
- **Limit exposure to sprays especially in the locker room**
Playing it Safe with Exercise-Induced Asthma

- Pre-medicate 15-20 minutes before exercise
- Warm up for 10-15 minutes
- Cool down 10-15 minutes
- Drink plenty of water
High asthma-inducing activities:
- Long-distance running
- Cycling
- Basketball
- Soccer
- Rugby
- Ice hockey
- Ice skating
- Cross-country skiing

Low asthma-inducing activities:
- Volleyball
- Football
- Swimming
- Diving
- Walking
- Tennis
- Gymnastics
- Wrestling
- Golf
- Karate
- Baseball
- Handball
- Sprinting
- Jump roping
Remember to:

Take appropriate steps to inform the school nurse and the student's parents/guardians if the student frequently experiences asthma symptoms with physical activity...most students with asthma should be able to participate fully in physical activities, most of the time.
Remember to:

Help students and the school nurse make sure that the students' prescribed asthma medicines are available for use, according to their asthma management plans, before physical activity and as needed for acute symptoms.
Remember:

A student who experiences symptoms or who has just recovered from an asthma episode is at even greater risk for additional asthma problems. Take extra care. Observe for asthma symptoms.
Reminder:

A student’s grade should not be lowered because of their nonparticipation in an activity due to illness, including asthma. The student should be allowed the opportunity to make up the missed activity which may need to be modified due to the illness.

“No otherwise qualified individual with a disability...shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

Section 504 of the rehabilitation act of 1973
Components of a coordinated school health program

- Family & Community Involvement
- Physical Education
- Comprehensive School Health Education
- School-site Health Promotion for Staff
- Healthy School Environment
- Nutrition Services
- Counseling, Psychological & Social Services
- School Health Services
Our Funding
The Mission of the LAUSD Nursing Services Asthma Program is to improve the health and academic achievement of students with asthma by reducing asthma exacerbations through the education of students, parents, and staff on the prevention and management of asthma.
In Home Asthma Project:
Case Management for High Risk Students

- Asthma Nurse coordinates with School Nurses & other school staff
- Home Visits for Students with uncontrolled asthma: Chronically Absent, ER Visits, Recent Hospitalization
- Asthma Education
- Help to Identify Triggers
- Mitigation of Home Triggers
- Referrals for Medical Care
- Assistance Obtaining Health Insurance
LAUSD Asthma Program Student Sample (n=411)

Gender
- Male: 68
- Female: 37

Age
- 5 or less: 9
- 6 - 8: 34
- 9 - 11: 30
- 12 - 14: 14
- 15 +: 13

Race
- Hispanic: 70
- African-American: 25

Free Lunch Program
- Yes: 98
- No: 2
Asthma is under better control

Frequency of Episode

1. Unlikely Asthma
2. Possible Asthma
3. Likely Asthma Controlled
4. Likely Asthma Uncontrolled Mild Activity
5. Likely Asthma Uncontrolled Moderate to Severe Activity
LAUSD Asthma Program Outcomes

- Reaching more students, especially African American students/families
- Reaching students from families of significantly low income
- Results of Case Management Program:
  - Decreased hospital admission/ER/UC use
  - Greater access/use of long-term controller medications
  - More written AAPs
  - Fewer day and night symptoms/episodes
  - Better controlled asthma
Open Airways For Schools

- Nearly 200 School Nurses have been trained to teach self-management skills to groups of children at their school.

- Children 8-11 are taught how to use their medication, detect asthma warning signs and environmental factors that can trigger an asthma attack.
Helping Scott Win!

A story book for educating 1st through 3rd graders about asthma

What About Asthma?

A video to educate middle school and high school students about asthma

Anansi’s Flare-up

A video for educating 4th and 5th graders about asthma

Working Together to Control Asthma

A video to educate parents and community members about asthma
A resource for parents, students, nurses and teachers
# PE Teacher’s Checklist

**Name:**

**School:**

**Room or Area:**

**Date Completed:**

**Signature:**

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## Assess the status of the following:

### 1. GENERAL CLEANLINESS OF GYM, CLASSROOMS AND LOCKER ROOMS

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Rooms are dusted and vacuumed regularly</td>
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<tr>
<td>1b. Rooms are free of clutter</td>
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<td>1c. Trash is removed daily</td>
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<td>1d. No food is stored in classroom overnight</td>
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<tr>
<td>1e. Rooms are free of pests and vermin</td>
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<tr>
<td>1f. Cleaners and air fresheners, if any, are unscented and school-approved</td>
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### 2. DRAIN TRAPS IN THE GYM, CLASSROOMS AND LOCKER ROOMS—if present

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<thead>
<tr>
<th>Instruction</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
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<tbody>
<tr>
<td>2a. Water is poured down floor drains once per week (approx. 1 quart of water)</td>
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<td>2b. Water is run in sinks at least once per week (about 2 cups of water)</td>
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<td>2c. Toilets are flushed at least once each week, especially if not used regularly</td>
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### 3. EXCESS MOISTURE IN GYM, CLASSROOMS AND LOCKER ROOMS—if present

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<thead>
<tr>
<th>Instruction</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
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<tr>
<td>3a. Condensation is wiped from windows, windowsills, and window frames</td>
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<td>3b. Cold water pipes are checked for moisture and remove (dried)</td>
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<td>3c. Indoor surfaces of exterior walls are free of condensation</td>
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<tr>
<td>3d. Areas around and under sinks are free of leaks</td>
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<td>3e. Classroom lavatories are free of leaks</td>
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<td>3f. Ceiling tiles and walls are free of leaks (discoloration may indicate periodic leaks)</td>
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<td>3g. Spills are cleaned promptly</td>
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</table>
4. THERMAL COMFORT

4a. Temperature is moderate (should generally be 72°F–76°F).................................☐ ☐ ☐
4b. There are no signs of draftiness.................................................................☐ ☐ ☐
4c. Students are not seated in direct sunlight ...............................................☐ ☐ ☐
4d. Indoor humidity is maintained at acceptable levels (between 30 and 60 percent) .................................................................☐ ☐ ☐

5. VENTILATION

5a. Ventilator unit has been located .................................................................☐ ☐ ☐
5b. Air supply and return vents have been located.........................................☐ ☐ ☐
5c. Air is flowing from supply vent .................................................................☐ ☐ ☐
5d. Air supply pathway is not obstructed..........................................................☐ ☐ ☐
5e. There are no vehicle exhaust, kitchen/food, and chemical odors in the classroom ..................................................................................☐ ☐ ☐
5f. There are no signs of mold or mildew .........................................................☐ ☐ ☐
5g. Windows can be opened for fresh air .........................................................☐ ☐ ☐

6. LOCKER ROOM

6a. Locker room and showers are cleaned regularly and properly ......................☐ ☐ ☐
6b. Soiled clothes are removed regularly .........................................................☐ ☐ ☐
6c. Wet towels are removed from locker room daily ......................................☐ ☐ ☐
6d. There is water in the drain trap .................................................................☐ ☐ ☐
6e. The local exhaust fan is functioning properly and used consistently ..........☐ ☐ ☐

NOTES:
First Aid For Asthma

What to look for:
- Shortness of Breath
- Coughing or Wheezing
- Chest Tightness
- Difficulty Walking, Talking or Breathing
- Tightly-pulled skin around neck or chest area

What to do:
1. STAY CALM, SPEAK REASSURINGLY, PROVIDE PRIVACY AND DO NOT LEAVE THE CHILD ALONE.
2. SEAT CHILD UPRIGHT, DO NOT LET CHILD LIE DOWN.
3. USE QUICK RELIEF MEDICATION AS INDICATED IN ASTHMA ACTION PLAN OR MEDICATION AUTHORIZATION FORM.
4. IF NO IMPROVEMENT AFTER 5 MINUTES CALL 911.
5. CALL 911 IMMEDIATELY IF:
   - LIPS AND/OR NAILS ARE BLUE
   - SKIN IS PULLED TIGHTLY AROUND NECK OR CHEST
   - CHILD CANNOT WALK OR TALK
Primero Auxilio Para El Asma

Que observa:
- Silbido al respirar
- Tensión del pecho
- Dificultad de respirar
- Tos Presistente
- Dificultad de caminar
- Insuficiencia de respiración
- Piel apretada alrededor del cuello
- Dificultad de hablar

Que Hacer:

QUÉDESE TRANQUILO, HABLE DE MODO TRANQUILIZADOR, PROPORCIONA UN LUGAR AISLADO, NO DEJE EL NIÑO SOLO

SIENTE EL NIÑO DERECHO. NO DEJE QUE EL NIÑO SE ACUESTE

USE UNA MEDICINA DE ALIVIO RÁPIDO COMO INDICADO EN EL PLAN DE ACCIÓN CONTRA EL ASMA O UNA FORMA AUTORIZANDO TRATAMIENTO

SI NO HAY MEJORAMIENTO DESPUÉS DE CINCO MINUTOS, LLAME AL 911

LLAME AL 911 INMEDIATAMENTE SI:
- LOS LABIOS Y/O UÑAS SE PONEN AZULES
- LA PIEL ESTÁ DEMASIADA APRETADA ALREDEDOR DEL CUELLO O DEL PECHE
- EL NIÑO NO PUEDE CAMINAR O HABLAR