

## **AVOIDING ASTHMA TRIGGERS IN THE SCHOOL ENVIRONMENT**

### **Tobacco Smoke**

Tobacco smoke can result in the onset of an asthma episode. This may result from both first-hand and second-hand smoke inhalation. Evidence has also found that young children in their first year of life are at increased risk for developing asthma. Furthermore, studies have shown a link between impaired lung development, increased incidences in ear infections, sinus infections, bronchitis and pneumonia and even reduced cognitive abilities in children chronically exposed to smoke and air pollutants. To reduce the chance of an asthma episode as the result of tobacco smoke, the following steps could be implemented in the school setting:



- Encourage smoking cessation programs for students and parents.
- Enforce a no-smoking policy on school grounds and at all school functions.
- Encourage parents to avoid smoking indoors, in cars, or around children.
- Encourage no bus idling or cars sitting with engines running where children are waiting to be transported and may be exposed to exhaust fumes.

### **Dust Mites**

Dust mites are found in all locations, but are too small to be seen with the naked eye. They often live in mattresses, pillows, carpets, fabric-covered furniture, bed covers, stuffed toys, and clothes. Efforts to limit student exposure to dust mites (thereby minimizing the risk of asthma episodes as a result of dust mite presence) include:

- Avoiding curtains, throw rugs, and fabric-covered furniture in the school setting
- Following strict district policies regarding the maintenance of fabric-covered furnishings and rugs, as needed
- Avoiding the presence of stuffed toys in the school setting
- Avoiding pillows and loose cushions in the school setting



### **Pets**

Skin flakes, dander, urine, and saliva from pets can trigger asthma episodes for some people. While animals are not terribly common in the school setting, they are occasionally employed as classroom pets and teaching aids, as well as for assistive use for disabled students and staff.

Efforts to reduce asthmatic episodes under such circumstances may be difficult. Some considerations include:



- Avoiding classroom pets when they are known to trigger allergic asthma response by students or staff
- Encourage schools to thoroughly clean vents and areas where pets were kept.
- Encourage schools to review the latest Environmental Protection Agency guidelines on animals in schools.

### **Pests**

Cockroaches and rodents, as well as their waste products, can be asthma triggers for some people. Reduce exposure to these pests by implementing the following safeguards in your school setting:

- Do not leave food or garbage out.
- Store food in airtight containers.
- Clean all food crumbs or spilled liquids right away.
- Use pesticides according to your school district policy.
- Limit pesticide spray to infested area.
- Use same measures for school busses.



## Molds

Damp conditions may produce an asthmatic episode for some people. Damp conditions also contribute to mold growth. To control mold in the school setting, excess water must be reduced. Reduction of mold growth at school involves the following:



- Fixing all leaky plumbing and other sources of water entry into the school
- Washing mold from surfaces with vinegar and water or water and soap, allow to dry completely
- Replacing carpeting and other surfaces that are unable to completely dry after being wet
- Keeping drip pans in air conditioning units, refrigerators, and dehumidifiers dry and clean; may add a tablespoon of vinegar
- Using exhaust fans or open windows in showering areas, as well as in the kitchen.

## Weather Changes

Some children and staff may find that weather changes precipitate asthmatic symptoms. For some people, cold, dry air is the trigger. Others may find moist, hot air to be more troublesome. Other problematic situations may include sudden fluctuations in weather conditions, wind, or change in seasons. To help prevent such attacks:

- Encourage children to cover their nose and mouth with a scarf on cold or windy days. Play indoors during inclement weather.
- Use air conditioners when at all possible during humid, windy, or high air-allergy conditions.
- Be aware of forecasted weather conditions. Encourage susceptible children to avoid too much activity during extreme weather.
- Start medication/inhaled corticosteroid inhaler prior to season for prevention.



## Allergies

Some people are allergic to specific things such as pollen, trees, fresh cut grass and foods. To prevent an asthma attack:



- Stay indoors and keep windows closed if possible during times when pollen levels are high.
- Highly allergic foods should be avoided in school menus. Action plans should be in place for those students known to have food allergies. High allergy foods include shell fish, tree nuts, and peanut products.
- Students known to have latex or insect sting allergies should have action plans in place, with appropriate environmental actions enforced.

## Strong Odors and Sprays

The presence of strong smells can be a trigger for an asthma attack. Special attention should be given to students known to have such odors as a trigger for asthmatic symptoms. Steps to take in the school setting include:

- Encourage school faculty and staff to avoid wearing strong perfumes/cologne/lotions, talcum powder, and hair sprays. Avoid the use of strong smelling cleaning agents within the school setting.



## Exercise

Asthma can be triggered by exercise or vigorous activity. To avoid this:

- Have students warm up for 6-10 minutes before exercising.
- Limit outdoor activity when air pollen/pollution levels are forecasted as high.
- Encourage students to be proactive in addressing their asthma symptoms. Allow exercise pre-medication as prescribed by a health care provider, and emergency-relief medications as needed for symptoms of asthma.
- Have action plans in place for students with known exercise-induced asthma.



## Stress/Excitement

Some students may be susceptible to the onset of an asthma attack as the result of strong emotions. Emotions such as crying, laughing too hard, frustration, or anger may trigger asthma symptoms. To deal with such symptoms:

- Encourage the student to calm down quickly, and remove source of emotion, if possible from the situation.
- Encourage slow, steady breathing.
- Have quick-relief medicines readily available, and action plans in place for children susceptible to such circumstances.



## Respiratory Infections

Many students experience respiratory symptoms as the result of infection with colds, flu, or bronchitis. These may also trigger an asthmatic episode. Encourage such students to:

- Have annual flu shot
- Avoid close contact with other people who have respiratory infection
- Wash hands with soap and water regularly, especially during the cold and flu season
- Follow-up with a health care provider at the first signs of a respiratory infection.

