

MEDICAL BRIEFS

Kids and asthma

Children with asthma and their families may attend an informational health fair 3-8 p.m. Thursday, May 3, at the Tiger Club at Comerica Park in downtown Detroit on World Asthma Day. The stadium will be the setting for a fun, interactive and informational evening during which kids will learn the ABCs of asthma management.

"Kids need to know that they can live a normal life with asthma if they put into practice a management plan," said Dr. Rick Vinuya, chairman of the Detroit Asthma Coalition. "Asthma patients and their families need to know the factors that contribute to an asthma episode. Triggers can include severe allergies, respiratory infections, vigorous exercise, exposure to sudden temperature change, cigarette smoke, excitement and stress."

Asthma incidence in Detroit is three times the national average, with African American children three times more likely to die from asthma as Caucasian children.

Healthcare representatives from some of the 80 organizations that comprise the Detroit Asthma Coalition will be on hand to answer questions and discuss new medications and treatment options. A buffet meal will be served 4-6 p.m. Call the American Lung Association of Michigan at (800) LUNG-USA or visit www.alam.org.

Sleep study

The Sleep Disorders and Research Center at Henry Ford Hospital is looking for people to participate in one of several studies. All participants must be in good health and will undergo a free physical examination. Prospective participants should be between the ages of 18 and 64. Eligible participants will receive financial compensation. Call (313) 916-5185.

Weight loss

Since the program's inception in November, 38 participants in the weight management program offered at St. Mary Mercy Hospital in Livonia have shed a total of 672.7 pounds. The nine 13-week series of weight management classes begin April 26 and May 7. The program is a partnership between the hospital and Health Management Resources.

Participants must attend a free orientation session at the hospital noon to 1 p.m. Wednesday, April 25, in the Community Outreach Conference Room.

The HMR Weight Management Program includes the option of a medically supervised program or non-medically supervised program, "Healthy Solutions," depending upon the amount of weight loss desired. Both options use nutritionally complete weight-loss foods (shakes, bars and entrees).

Call (734) 655-1783 to register.

Stress management

Stress can be a good thing. Yet, crisis-induced events — injuries, illness or loss of a job or loved one — take their toll. Whether onset is sudden or gradual, too much stress may contribute to a decline in physical, mental and emotional health.

To aid adults facing stress-related problems, St. Mary Mercy Hospital will offer a three-week course titled "Stressed for Success" 6:30-8:30 p.m. Wednesdays, May 9, 16 and 23 in the pavilion. Various coping skills, relaxation techniques, communications skills and the use of humor will be explored.

There is a fee. To register, call (734) 655-8940 or (800) 494-1650 (out-of-area callers only).

We want your health news

There are several ways you can reach the Observer Health & Fitness section. The Sunday section provides numerous venues for you to offer noteworthy information including Medical Databook (upcoming calendar events), Medical Newsmakers (appointments/new hires in the medical field), and Medical Briefs (medical advances, short news items from hospitals, physicians, companies). We also welcome noteworthy ideas for health and fitness related stories. To submit an item to our newspaper you can call, write, fax or e-mail us.

CALL US:

(734) 953-2128

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Specialty Databook, Newsmakers or Briefs
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INDOOR POLLUTION

A risk to respiratory health

Seattle, Wash. - Indoor pollution poses a high risk to respiratory health as people spend more time indoors at home, in addition to time spent in shopping malls, theaters, restaurants, vehicles, and other recreational facilities, according to speakers at a recent international conference on the environment sponsored by the American College of Allergy, Asthma and Immunology in Seattle.

"Studies in both the U.S. and Europe indicate that people spend over 90 percent of their time indoors. They encounter a broad range of air pollutants traveling through a succession of microenvironments in the course of their daily activities," said program chair Dr. Emil J. Bardana, Jr., ACAAI president-elect.

Potential health consequences depend entirely on the number and concentrations of pollution sources, as well as on the duration of exposure. The quality of indoor air depends on the quality of outdoor air, the strength and nature of indoor emission sources, and regional climatic conditions.

"In general, indoor air pollution can be divided into agents that can induce respiratory disease immunologically (IgE-mediated response), and those that exert an adverse effect on the upper and lower respiratory tract by a variety of non-immunological mechanisms," said Bardana.

Indoor exposures include:

- Biological contaminants and their by-products, including microbial cells such as bacteria and viruses, in addition to fungal spores, protozoans, algae, animal dander and excreta, and insect excreta and fragments.



Household dust

- Chemical exposures, such as combustion sources that emit a variety of inorganic gases, hydrocarbon gases and impurities; and volatile organic compounds.

- Pollutants — such as carbon monoxide, nitrogen dioxide and formaldehyde — cause non-immunologic reactions. Sources include tobacco smoke, gas cooking stoves and pilot lights, unvented kerosene space heaters, wood and coal stoves and fireplaces.

- Occupant activities, including tobacco smoke, perfume, cosmetics, pesticides, room deodorizers.

The major sources of indoor allergens responsible for IgE-mediated respiratory illness in the United States are house dust mites, domestic pets (cats and dogs), cockroaches, fungi and other microorganisms.

Tiny pests

House dust mites are small, sightless, eight-legged arachnids related to ticks, spiders and scabies mites that live in the dust which accumulates in bedding, carpets, fabrics and soft furnishings. The presence of sensitization to dust mite is strongly associated with



Dust Mite

increased airway responsiveness and asthma.

"For remediation, it is important to remember that mites infest fabrics, and that they require constant humidity and warm temperatures," said Dr. Peyton A. Eggleston, Johns Hopkins University, Baltimore, Md. "The allergens associated with mites are found in large particles that require vigorous disturbance to become airborne and do not remain airborne for long."

His recommendations for environmental control measures for dust mites are:

- First line: use of mattress and pillow covers; wash bedding; keep stuffed animals out of bed; avoid extra humidity.

- Second line: remove carpets and upholstered furniture.

- Third line: use of acaricides (pesticide), tannic acid and dehumidifiers.

"The importance of mattress and pillow encasings cannot be overemphasized, and if they are appropriately used they will reduce mite allergen levels by two orders of magnitude. Washing allergen from bedding with water is effective. Dry cleaning will kill mites but is less effective in removing allergens at the same time," said Eggleston.

Animal allergens

Animal allergens are small, molecular weight proteins found in animal secretions — saliva, sebum, perianal glands and urine — that are carried on small particles and can be airborne for many hours. They are transported by becoming attached to clothing, shoes and hair. Significant concentrations of dog and cat allergens can be detected in homes without a pet.

"The only proven method of reducing animal allergen concentration indoors is to remove the animal, and even then, it requires six months or more to clean the allergen from the home. Measures short of this have not proven to reduce either settled dust or airborne allergen levels appreciably," said Eggleston.

As a second line of control, he recommends washing the pet, establishing a "safe room" with no pet access, no carpeting, use of a room air filter, and use of protein denaturants, such as tannic acid.

Cockroach allergens introduced to the environment through feces and saliva also present a major risk factor for asthma. They are found in kitchen cabinets, kitchen floor dust, bathrooms and basements.

"Cockroach extermination is best managed by a professional pest control company. Generally they

will apply new, highly effective pesticides as odorless gel baits that are environmentally friendly. These measures should eliminate roaches for 3-6 months," said Eggleston.

"After extermination, the home must be thoroughly cleaned to remove allergen from roach hiding places, woodwork, kitchen surfaces fabrics and rugs. To prevent reinfestation, food sources must be kept in sealed containers and dishes must be cleaned frequently," he said.

Fungus

Fungal contamination present in indoor environments is a growing concern. Many fungi produce allergens and toxins that have the capacity to induce adverse health effects. Fungi require oxygen, a suitable temperature, a source of nutrition and moisture to thrive. Toxins are produced by many different kinds of fungi.

"A few fungi can digest human tissue and lead to infections," said Dr. Harriett A. Burge, Harvard School of Public Health, Boston, Mass. "During growth, the fungi release enzymes, which can be allergenic, into the environment to digest food to a soluble form for adsorption. In the digestion process, new enzymes and secondary metabolites are released that can be allergenic, irritating or toxic for some forms of life."

Fungal allergens clearly play a role in respiratory allergies including asthma. Because living with mold is dangerous for asthmatics, and potentially a problem for young children with respect to lower respiratory illness, fungal growth in homes and schools should be minimized.

"The absolutely essential step for controlling fungal growth is to remove water from the environment," said Burge.

Stachybotrys is a mold sometimes found in indoor environments associated with water damage.

"The potential adverse health effects of Stachybotrys toxins (satratoxins) cannot be ignored and will remain a concern," said Dr. Abbas I. Tarr, University of California - San Francisco Medical Center. "However, a critical review of the current published reports of possible human disease from inhalation of Stachybotrys spores do not yet establish a clear-cut cause-effect relationship to warrant the degree of concern now expressed by such terms as 'fatal fungus.'"

All fungi that produce airborne spores, including Stachybotrys, are capable of causing allergic sensitization and disease, said Tarr. "In such case, the correct diagnosis must be established by thorough clinical evaluation, appropriate testing and proper interpretation of environmental investigations."

More information on allergic diseases, including asthma, is available on the Internet at www.medem.com or by calling the ACAAI toll-free number (800) 842-7777.

Teen sex Program offers help in saying, 'No!'

BY RENEE SKOGLUND
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Teen sex is just not worth the risk. That was the message taken home by the scores of teens from the Wayne-Westland School District who attended the Wayne County Department of Public Health's Teen Pregnancy Prevention Rally at the Wayne Recreation Center March 30.

Held in a carnival setting, which included appearances from WDET-FM radio personalities "Spud & Sunny," the event was designed to get teens to enroll in the health department's Teen Pregnancy Prevention Program, known as "TP3."

"While teen pregnancy in the United States has declined in recent years, there are communities within Wayne County where teens are becoming pregnant at an alarming rate," said Patricia Soares,

Wayne County Public Health Director. "We are directing our teen pregnancy reduction efforts towards Wayne-Westland because teens giving birth in this district exceed state and county levels."

According to reports tabulated by county officials, live birth percentages range from 2.8 to 9.0 percent of teen mothers living in the Wayne-Westland School District. In hard numbers, that translates into 456 babies last year. That's higher than Taylor, which recorded 436 births.

"We would add to these numbers significantly if we added terminations or miscarriages," said Soares.

The TP3 program is a partnership between the school district, the Michigan Department of Community Health and the Wayne County Family Inde-



COURTESY OF WAYNE COUNTY DEPT. OF HEALTH

Teen power:

Teen advisors and rally participants pose with WDET 105.9 FM's "Spud & Sunny" (lower center) at the Teen Pregnancy Prevention Rally.