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New Risk Factors For Middle-Ear Infections Identified

Researchers have identified new risk factors for middle-ear infections—the most common reason children three years of age and under are taken to their doctors—that will help clinicians identify children who may benefit from intervention early in infancy.

Investigators from Boston University School of Medicine (BUSM) and Boston City Hospital (BCH) conducted a prospective study of nearly 3,000 Boston-area children and found that those at greatest risk for middle-ear infections had a sibling history of ear infections, were male, were not breast-fed, and experienced their first episodes during the first year of life. The study is published in the July issue of the Journal of Infectious Diseases.

The researchers also found: the earlier that children suffered their first episodes the more likely they were to suffer repeated episodes; the peak incidence occurred between the ages of six and 12 months; and breast-feeding, even for a short period of time, was a protective measure.

While the acute symptoms of middle-ear infections—such as fever, pain or diarrhea—can be treated effectively with antibiotics, fluid may remain in the ear for weeks or months. "This fluid reduces sound by about 25 decibels, an impairment equivalent to hearing as if wearing ear plugs," says Jerome O. Klein, M.D., a professor of pediatrics at BUSM and head of the Division of Pediatric Infectious Disease at BCH.

Since these infections occur most frequently when children are developing at a rapid rate, repeated episodes may result in short- or long-term impairment of speech, language and cognitive abilities. By identifying infants at risk, physicians can consider aggressive treatment with antibiotic prophylaxis or surgery to prevent or minimize potential impairment.

Low-Fat Breakfast Can Reduce Risk Of Heart Disease

Substituting cereal and fruits for bacon and eggs in the morning can significantly reduce total daily intake of fat and cholesterol, according to a study by R. Curtis Ellison, M.D., of Boston University School of Medicine. "A typical American breakfast consisting of high-fat foods accounts for nearly 25 percent of daily fat intake and two-thirds of daily cholesterol," says Ellison. "By simply changing breakfast foods, people can begin to decrease their risk factors for cardiovascular disease."

Ellison and his colleagues randomly assigned 98 college students to either a high-fat or a low-fat breakfast for three weeks, then alternated menus for another three weeks. Restrictions applied only to breakfast; students continued to consume their usual diets—including fast foods and other high-fat foods—for the remainder of the day.

Results of the study indicate that compared to a high-fat breakfast, a low-fat breakfast reduced breakfast fat intake by 50 percent and resulted in a 15-percent reduction of total fat for the entire day. Cholesterol intake at breakfast was 79 percent less during the low-fat period than during the high-fat period. Fat and cholesterol reductions achieved at breakfast were not compensated for by increased fat intake later in the day.

The low-fat breakfast also accounted for a small yet significant decrease in students' blood cholesterol levels, particularly among those whose cholesterol was above average. "While a low-fat breakfast can be beneficial to us all, people predisposed to high blood cholesterol can benefit especially from modifying their morning meal," says Ellison.

(more)
Uncommon Form Of Esophageal Cancer On Rise

An uncommon form of esophageal cancer, known as adenocarcinoma, may be occurring five times more frequently than in the past, according to a study by Paul Hesketh, M.D., a medical oncologist at the University Hospital (UH) in Boston. The study, published in the July issue of Cancer, shows that adenocarcinoma, which previously accounted for less than five percent of esophageal cancers, may now account for as much as 30 percent.

Each year, 10,000 Americans develop deadly esophageal cancer—usually squamous cell carcinoma. "In recent years, however, we've seen more and more cases of adenocarcinoma," says Hesketh. "We wanted to know if it was a real phenomenon or just chance."

Hesketh and his colleagues reviewed tumor registry data from UH and the Boston Veterans Administration Medical Center between 1980-86 and found that of the reported esophageal cancers, 31 percent were adenocarcinomas. Two-year data from the Massachusetts tumor registry revealed that 27 percent of esophageal cancers reported statewide were adenocarcinomas. In both cases, the incidence among men was higher than among women and the incidence among blacks was very low. Connecticut and National Cancer Institute statistics showed a similar trend. To rule out changes in diagnostic criteria as the cause of the increase, Hesketh re-analyzed case records from the two Boston hospitals using earlier criteria and found that the incidence was still three to five times higher than reported in earlier studies.

The next step, according to Hesketh, will be to identify the risk factors shared by adenocarcinoma patients and factors that might be causing a possibly related decrease in squamous cell carcinoma.

Night Terrors—Usually Nothing To Lose Sleep Over

Night terrors—sudden attacks of panic that cause a sleeper to scream for what appears to be no reason—affect an estimated one to three percent of the population. Unlike a nightmare, which usually awakens a sleeper alertly with the memory of a bad dream, night terrors may cause the sleeper to awaken in a terrified and confused state that can last for many minutes. Some awaken remembering only a single terrifying image or perhaps nothing at all.

Night terrors may occur in infancy and childhood and usually disappear as the child grows up. In adults, while night terrors may be related to anxiety or stress, they may often occur for no reason.

"Sometimes not dealing adequately with stress will result in night terrors," says Sanford H. Auerbach, M.D., director of the Sleep Disorder Center at the University Hospital. "Most people come to me because their spouse or housemates are frightened by their screaming. It is important to exclude other types of sleep disorders that may resemble night terrors, such as obstructive sleep apnea—abnormal breathing which awakens a sleeper—or nocturnal seizures," he adds. Once people find out there is nothing physically or mentally wrong, everyone can sleep a lot better. "Besides the annoyance, there really is no harm in night terrors. They are comparable to sleep walking."

Auerbach recommends learning to vent stress through the use of meditation or exercise. At times, psychotherapy may be needed. When necessary, prescription drugs taken at bedtime may relieve the problem of night terrors. Medications are helpful in easing underlying anxiety and/or modifying the stage of sleep in which night terrors occur.