

Big snores, smaller fetus

Snoring in pregnant women is often a sign of induced hypertension and may be a contributing factor in infants with low birth weight, a study conducted by researchers at Sweden's Umea University Hospital has determined (*Chest* 2000;117:137-41).

"It is possible that pregnant women are especially vulnerable to increases in upper airway resistance, as breathing may also be restricted by an increase in abdominal pressure affecting the diaphragm," says lead investi-

gator Dr. Karl Franklin, a member of the Department of Respiratory Medicine at Umea University Hospital.

More than 500 women took part in the study, which included a questionnaire filled out on the day of delivery, as well as analysis of Apgar scores.

The researchers found that snoring increased significantly during pregnancy. Twenty-three per cent of the women reported that their snoring had become habitual during the week before delivery. Fourteen per cent of the women who snored habitually had pregnancy-induced hypertension, compared with only 6% of the nonfrequent snorers. In addition, sleep apnea was found in 11% of the women who snored habitually. Among the less frequent snorers, this condition was observed in just 2% of the women. Ten percent of the frequent snorers met the medical criteria for pre-eclampsia. Only 4% of the less frequent snorers met the criteria. In particular, edema was found to be much more prevalent among

snorers than nonsnorers. Fifty-two per cent of the women who snored habitually had edema of the legs, feet, hands or face, compared with 30% of the study's other participants.

"We [also] found that snoring was related to babies who were born small for their gestational age," said Franklin. "Snoring was a risk factor of the same magnitude as smoking and independent of smoking, weight and age of the mother."

More than 7% of the mothers who snored habitually gave birth to an infant with lower-than-average birth weight, compared with 2.6% of other mothers in the study group.

"I believe that snoring is a cause of intrauterine growth retardation," said Franklin. "However, it is harder for me to believe that snoring causes hypertension. Perhaps it worsens an already existing hypertensive disease. Further studies are needed to see whether the relationship is causal or not." — *Donalee Moulton, Halifax*



Measles and atopic diseases: no proof of prevention

Contrary to a widely held theory, measles does not protect individuals from atopic allergic diseases such as rhinitis and asthma, new research conducted in Finland indicates (*JAMA* 2000;283:343-6). "The most important finding to come out of this study is that measles and atopy go hand-in-hand and not vice versa, as has been suggested," says Dr. Mikko Paunio, lead investigator and a senior medical officer with the Ministry of Social Affairs and Health in Finland. "I think the only explanation must be genes. They must determine to a large extent the natural history and sequelae of measles infection."

The Finnish researchers examined data on nearly 550 000 children and teenagers, ranging in age from 14 months to 19 years, to understand the

association between measles and eczema, rhinitis and asthma. After adjusting for age, the lifetime prevalence of these 3 diseases was found to be 32% to 67% higher among those who had had measles than among those who had never had the disease.

Specifically, the population-based, cross-sectional study found that the prevalence ratio of atopic symptoms among those who had had measles compared with those who had not was 1.32 for eczema, 1.41 for rhinitis, and 1.67 for asthma. This positive association between measles and atopy was found at all ages, in both urban and rural residents, and among those with both many and few contacts at home or in day care.

"The most important lesson learned from our study is that prevention of in-

fectious diseases is still the number one target in disease prevention," says Paunio. "We should not allow premature or unproven ideas to affect key policies and health targets, however attractive they may be at first glance."

In an editorial that appears in the same issue as the European study, Dr. James Gern from the University of Wisconsin Medical School and Dr. Scott Weiss from Harvard University caution that "it should not be assumed that all infectious diseases have the same effects on the risk for allergies and asthma." They recommend that prospective studies be conducted to evaluate the effect of childhood infections on the development of the immune system. — *Donalee Moulton, Halifax*