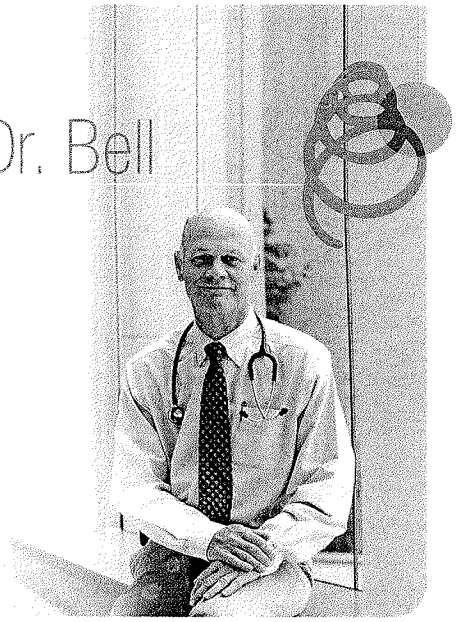
ask Dr. Bell



Louis Bell, M.D., chief of the Division of General Pediatrics at CHOP, shares the latest in medical thinking on an important topic: peanut allergies. BY LOUIS BELL, M.D.

In a Nut Shell

The thought of introducing peanuts into a child's diet for the first time strikes fear in the hearts of many parents. And rightly so. Peanut allergies are one of the most common causes of severe allergic reactions in the United States. Symptoms often occur within minutes of exposure and run the gamut from hives, mild swelling and abdominal pain to a life-threatening reaction called anaphylaxis, characterized by recurrent vomiting, difficulty breathing and, at times, a severe drop in blood pressure and loss of consciousness. In some patients, exposure to even the tiniest fraction of a peanut can cause a serious reaction.

Since 1997, the number of school-age children with peanut allergies has more than quadrupled in the U.S., yet why these allergies occur remains an enigma. Experts believed that delaying introduction of peanuts would reduce the prevalence of peanut allergies, so in 2000, the American Academy of Pediatrics (AAP) recommended avoiding feeding peanuts to children until age 3. But in 2008, these recommendations were put into question by the AAP and the American Academy of Allergy, Asthma and Immunology (AAAAI). And, in 2012, delay in introduction of foods was no longer recommended.

New evidence from the United Kingdom published earlier this year in *The New England Journal of Medicine* suggests that delaying introduction of peanuts may actually be associated with an increased risk of peanut allergy. I checked in with two expert CHOP colleagues, Terri Brown-Whitehorn, M.D., and Jonathan Spergel, M.D., Ph.D., who study, diagnose and treat all types of food allergies, to get their take on the significance of this finding.

The Learning Early About Peanut Allergy (LEAP) trial — a randomized, controlled trial sponsored by the National Institutes of Health (NIH) and other organizations in the U.S. and Britain — followed 640 children with a high risk of peanut allergy from age 4 to 11 months until age 5. Children considered high risk were those who had been diagnosed with severe eczema or egg allergies early in life.

The trial grew out of an observation that the rate of peanut allergies in Jewish children in Israel was about one-tenth of that of Jewish children in the U.K. Researchers hypothesized that this discrepancy might be connected to when children were fed peanuts or peanut flour. Parents in Britain typically delay introduction of peanuts until 3 years of age, while Israeli parents give their babies peanuts early (often in the form of a snack food called Bamba, made from puffed corn and peanut butter).

To test this hypothesis, the LEAP trial skin-tested all babies at high risk from peanuts. If their reaction to the peanut skin test was large, the child was not included in the study (10% of at-risk babies). Of those remaining in the study, half the children were regularly fed food that contained peanuts and the other half were not. The trial results were quite compelling, demonstrating a significant reduction in the risk of peanut allergy in the high-risk children who were fed peanuts early vs. late (10% prevalence compared with 35%). Reactions to peanuts still occurred, but at a much lower rate.

This latest evidence suggests that early peanut introduction into the diets of babies may reduce the risk of peanut allergies. If a baby is not at high risk of peanut allergy, parents can feel more free to give the baby peanut flour or butter. If the baby is at high risk of peanut allergy (e.g., those with severe eczema, history of egg allergy or a sibling with peanut allergy), parents should first discuss peanut introduction with their pediatrician or allergist.

There will be more extensive guidelines in the near future from the NIH, the AAP and the AAAAI. These groups will consider all the available data and determine whether there is sufficient evidence to recommend early introduction of peanut-based foods to the general population. Most experts feel that this will be a safe practice.

Talk with your pediatrician about whether you should begin this practice with your child or grandchild.