East Tennessee Children's Hospital

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Part 4 of 4

Few issues are closer to our hearts or more crucial to our future than the health of children. As an abundance of children's health issues hit the media spotlight last year, it was a challenge for many parents to keep track of them all or determine which matter most. Some strike close to home and involve things parents do routinely to keep their children safe and healthy. Others, for now at least, seem to be in the hands of lawmakers or scientists, far removed from our immediate lives, yet no less important to children's well being.

In 2008, Children's Hospital has highlighted eight of these important children's health issues to watch. Each issue of It's About Children this year focused on two topics. This list was not meant to be comprehensive, nor does it suggest that other health issues aren't also important. But we think these eight subjects will have a lasting impact on children's health well into the future.

Food Allergies: Outlawing PB&J

Q: **Why are food allergies a growing problem?**

A: The incidence of food allergies doubled over the last decade and now affects about three million school-age children, including one in every 17 children age 3 or younger. Research suggests some food allergies are lasting longer into childhood than in the past. Food allergies can have far-reaching effects on every aspect of a family's home and social life, as parents try to manage children's exposure to allergens. Even children who don't have food allergies are affected, facing new restrictions on what they can eat and bring to day care, schools, summer camp and even birthday parties.

A recent federal law required food makers to plainly state whether their products contain any of the top food allergens (milk, eggs, fish, crustacean shellfish, peanuts, tree nuts, wheat and soy). The National Institutes of Health (NIH) identified food allergies as a public health issue and funded research to learn what causes them and to develop options for treatment and prevention.

Q: What is a food allergy?

A: An allergy is an overreaction of the immune system to a substance – in this case, a food item – that is harmless to most people. But in someone with an allergy, the body's immune system treats the substance (called an allergen) as an invader and reacts inappropriately, resulting in symptoms that can be anywhere from annoying to possibly harmful to the person.

In an attempt to protect the body, the immune system of the allergic person produces antibodies called immunoglobulin E (IgE). Those antibodies then cause mast cells (allergy cells in the body) to release chemicals, including histamine, into the bloodstream to defend against the allergen "invader."

Q: What is a food allergy reaction like?

A: Histamine causes symptoms that affect a person's eyes, nose, throat, respiratory system, skin and digestive system. An allergic reaction can be mild to severe and can occur right away or within a few hours after eating a certain food. Some of the first signs can be a runny nose, an itchy skin rash such as hives or a tingling in the tongue or lips. Other signs include:

- tightness in the throat
- hoarse voice
- wheezing
- cough
- nausea
- vomiting
- stomach pain
- diarrhea

In the most serious cases, a food allergy can cause anaphylaxis. This is a sudden, severe allergic reaction in which several problems occur all at once; it can involve the skin, breathing, digestion, the heart and blood vessels. A person's blood pressure can drop, breathing tubes can narrow and the tongue can swell. People at risk for this kind of reaction need a plan for handling emergencies, when they might need to get special medicine to stop these symptoms from getting worse.

Q: How do I know if my child has a food allergy?

A: Sometimes it is easy to figure out that a child has a food allergy. He or she might get hives or have other problems after eating a certain food. But sometimes, the source of the problem is a mystery. Most foods have more than one ingredient, so if a child has shrimp with peanut sauce, what is causing the allergy – the peanut sauce or the shrimp?

Doctors believe allergies may be hereditary, which means if you or a close relative have certain allergies like hay fever, your child is more likely to develop the allergies. Some children are born allergic to certain

foods, whereas others develop food allergies over time. This may be due to surroundings or changes in the body as they grow older.

Many people react to a certain food but are not actually allergic. For example, people with lactose intolerance get stomach pain and diarrhea from milk and other dairy products. That does not mean they are allergic to milk. They don't feel good after drinking milk because their bodies cannot properly break down the sugars found in milk.

Q: What will the doctor do?

A: If you think your child may be allergic to a certain food, schedule a doctor's visit to get it checked out. If the doctor thinks your child might have a food allergy, he or she will probably suggest that you make an appointment with a doctor who specializes in allergies. The allergy specialist will ask you about your child's past reactions and how long it takes between eating the food and getting the symptom, such as hives. The allergist also may ask about whether anyone else in your family has allergies or other allergy-related conditions, such as eczema or asthma.

The allergist may also want to do a skin test. This is a way of seeing how the body reacts to a very small amount of the food that is causing the trouble. The allergist will use a liquid extract of the food and, possibly, other common allergy-causing foods to see if you react to any of them. The doctor will make a little scratch on the skin and drop a little of the liquid extract on the scratched spot or spots. Different extracts will go on the different scratch spots, so the doctor can see how skin reacts to each substance. A reddish, raised spot shows an allergy to that food or substance.

Q: How are food allergies treated?

A: There is no special medicine for food allergies. Some can be outgrown, and others a child will have his or her whole life. The best treatment is simply to avoid the food itself and any foods or drinks that contain the food. One way to figure that out is to read food labels. Any foods that might cause an allergic reaction will be listed near or in the ingredient list. Doctors and allergy organizations also can help by providing lists of safe foods and unsafe foods. Some people who are very sensitive may need to avoid foods just because they are made in the same factory that also makes their problem food.

Q: What should I do if my child accidentally eats something he or she is allergic to?

A: Stay calm and follow your emergency plan. Before a slipup happens, it's a good idea to create a plan with a doctor and your child. The plan should spell out what to do, who to tell, and which medicines to take, should a reaction occur. This is especially important with a food allergy that can cause a serious reaction (anaphylaxis). For these allergies, people may need a shot of epinephrine with them. This kind of epinephrine injection comes in an easy-to-carry container that looks like a pen. After receiving an epinephrine shot, the child will need to go to the hospital or a medical facility to make sure the reaction is under control.

Q: **What can we expect of this issue in the remaining weeks of 2008 and into 2009?**

A: As the incidence of food allergies continues to rise among children, more families and communities will be contending with them, whether their children have allergies or not. With more school lunchrooms becoming peanut-free zones, staples like PB&J could become relics of the past.

Obesity: Beyond the Body

Q: **What are the emotional effects of obesity?**

A: Being overweight or obese can significantly affect a child's daily life, potentially causing serious physical *and* psychological problems now and in the future, says a recent study. Researchers from Yale University and the University of Hawaii at Manoa pored through 40 years of findings to analyze the extensive, often endless, stigma that overweight children commonly endure.

According to the study, children and teens carrying around excess pounds may be the targets of bias and stereotyping not only from their peers, but also teachers and, surprisingly, their parents. Children who are overweight frequently experience unfair treatment, prejudice and discrimination, says the study, and are often:

- prone to low self-esteem, depression, and suicidal thoughts
- teased, bullied or rejected by peers (even as early as preschool)
- more likely to develop unhealthy dieting habits and eating disorders, such as anorexia nervosa and bulimia

The cruel treatment and social disadvantages associated with being overweight may have lasting, harmful effects on everything from children's physical health to their education, from their relationships to their jobs.

Q: **What are the physical effects of obesity?**

A: Overweight and obese children are at risk for developing medical problems that affect their present and future health and quality of life, including:

- high blood pressure, high cholesterol and abnormal blood lipid levels, insulin resistance, and type 2 diabetes
- bone and joint problems
- shortness of breath that makes exercise, sports or any physical activity more difficult and may aggravate the symptoms or increase the chances of developing asthma
- restless or disordered sleep patterns, such as obstructive sleep apnea
- tendency to mature earlier (overweight children may be taller and more sexually mature than their peers, raising expectations that they should act as old as they look, not as old as they are; overweight girls may have irregular menstrual cycles and fertility problems in adulthood)

- liver and gall bladder disease
- depression

Cardiovascular risk factors present in childhood (including high blood pressure, high cholesterol and diabetes) can lead to serious medical problems like heart disease, heart failure and stroke as adults. Preventing or treating overweight and obesity in children may reduce the risk of developing cardiovascular disease as they get older.

Q: How can I prevent my child from becoming obese?

A: The percentage of overweight children in the United States is growing at an alarming rate – 1 out of 3 children are now considered overweight or obese. The key to keeping children of all ages at a healthy weight is taking a whole-family approach. It's the "practice what you preach" mentality. Make healthy eating and exercise a family affair. Get your children involved by letting them help you plan and prepare healthy meals, and take them along when you go grocery shopping so they can learn how to make good food choices.

Avoid falling into some common food/eating behavior traps:

- **Don't reward children for good behavior or try to stop bad behavior with sweets or treats.** Come up with other solutions to modify their behavior.
- **Don't maintain a clean-plate policy.** Be aware of children's hunger cues. Even babies who turn away from the bottle or breast send signals that they are full. If children are satisfied, do not force them to continue eating. Reinforce the idea that they should only eat when they are hungry.
- **Don't talk about "bad foods" or eliminate all sweets and favorite snacks from children's diets.** Children may rebel and overeat these forbidden foods outside the home or sneak them in on their own.

If you eat well, exercise regularly and incorporate healthy habits into your family's daily life, you're modeling a healthy lifestyle for your children that will last. Talk to your children about the importance of eating well and being active, but make it a family affair that will become second nature for everyone.

Q: What can we expect of this issue in the remaining weeks of 2008 and into 2009?

A: The fight against childhood obesity will focus on prevention through fitness and healthy eating strategies that are integrated into home, schools and communities. These efforts will take into account the psychological, social and emotional issues that play a role in obesity — and their effects on children's development.

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