

Adult diseases becoming common in kids

By Alexandra Sifferlin, Time

Diabetes, obesity and elevated blood pressure typically emerge in middle-age, but more young children are showing signs of chronic conditions that may take a toll on their health.

The latest report on the trend, from researchers at Harvard Medical School found that children and adolescents are increasingly suffering from elevated blood pressure. Published in the American Heart Association journal *Hypertension*, the study showed a 27% increase in the proportion of children aged 8 years to 17 years with elevated blood pressure over a thirteen-year period.

The scientists compared over 3,200 children involved in the National Health and Nutrition Examination Survey (NHANES) III in 1988-94 to over 8,300 who participated in NHANES in 1999-2008. The national survey records health, eating and lifestyle behaviors of the volunteers. More kids in the recent survey were overweight, with larger waistlines than those in the previous cohort. And the children with body mass index (BMI) readings in the top 25 percent of their age group were two times more likely to have elevated blood pressure than the kids in the bottom 25 percent.

The kids did not have diagnosed hypertension, which requires a threshold of 140-90, but elevated blood pressure – anything above 120-80 – at such young ages could prime them for hypertension later. “High blood pressure is dangerous in part because many people don’t know they have it,” said lead study author Bernard Rosner, a professor of medicine at Harvard Medical School in a statement.

The results are only the latest to reveal the first signs of

chronic conditions that normally don't occur until middle-age, in children and teens.

Earlier this year, the American Academy of Pediatrics released its first guidelines for type 2 diabetes, sometimes called adult-onset diabetes, among kids. Pediatricians are not typically trained to treat this form of the disease; they are more familiar with type 1.

What's driving today's children to develop these diseases before their time? Obesity may be play a major role in many of these conditions, from diabetes to blood pressure and joint problems, says experts. "When I was in residency we didn't learn too much about obesity or type 2 diabetes. Type 2 diabetes happened to adults. Every once in a while you had a type 2 diabetes case. Now, those are the norm. We see type 2 diabetes happening in children and teenagers all the time now," says Dr. Dyan Hes, a New York City pediatrician and obesity specialist and founder of Gramercy Pediatrics. Hes is unaffiliated with the Hypertension study.

The list of symptoms and diseases that Hes now sees among her young patients could just as easily apply to patients who are decades older – high blood pressure, type 2 diabetes, pre-diabetes, worsening asthma symptoms, sleep apnea, joint pain, and swelling in the brain caused from being morbidly obese.

And to treat these conditions, more young children are taking medications for longer periods of time, so the long term health consequences of that trend is starting to worry many pediatricians. "It is creating youth who are disabled or medicated. They can't participate in regular sports that other kids do. They are taking medicine at such young ages. So many of these medicines have bad side effects," says Hes. "Medicines are expensive so it is a huge burden to the health care system. You have kids going to cardiologists or orthopedic doctors for joint pain."

Dr. Pamela Singer of the division of pediatric nephrology at the Children's Hospital at Montefiore Medical Center in New York says an estimated 60% of referrals to her division are for elevated blood pressure. "In the past, children with hypertension tended to be those with underlying conditions such as renal disease, or those with specific vascular or genetic abnormalities," she says. "However, now the vast majority of hypertension that we are seeing is "adult-type" hypertension, related in large part to diet and lifestyle. That's not just true for hypertension, but also for other diseases classically thought of as "adult diseases," such as type 2 diabetes, which are becoming more common in the pediatric population. These conditions may all be interrelated – obesity, elevated blood pressure, high cholesterol, insulin resistance – and physicians and researchers are trying to elucidate those relationships."

Eating a healthy diet, for example, is not just about food itself but the food environment, which is constructed around cultural, social and economic factors that determine the diversity of food choices and the accessibility of these options. In the recent study, the researchers found that kids with the highest sodium intake were 36% more likely than kids who consumed less salt to have elevated blood pressure, and over 80 percent of the kids ate more than 2,300 milligrams of sodium a day. The American Heart Association currently recommends people consume 1,500 milligrams of sodium a day, but that may be a challenge for those who don't have access to fresh fruits and produce and rely on processed or fast food, which tend to be higher in salt.

Hes is hopeful that recent efforts by the USDA to make school lunches and food environments healthier will have some effect on worrisome health trends among students. In June, the agency announced that by next school year, schools nationwide will provide healthier snacks in vending machines that are low in fat, sodium and salt.

“I wish they would have a soda tax, but they don’t. They made tobacco prohibitively expensive and that’s why smoking has gone down. The need to make sugary drinks and snacks more expensive too,” she says. Hopefully the next cohort of children won’t show the same increase in adult diseases, and more youngsters can enjoy a childhood free of medications and disease symptoms.