

By Alice Park Monday, Aug. 09, 2010

A new study suggests that young girls are increasingly reaching puberty earlier between 2004 and 2006 twice as many Caucasian girls showed breast maturity at age 7 as compared to 1997. The percentage of African-American girls showing the same early sign of puberty remained constant over the same time period.

The analysis, conducted by researchers collaborating in the multicenter Breast Cancer and the Environment Research Centers, adds to the growing evidence that the onset of puberty in girls may be shifting earlier and earlier, possibly due to obesity or exposure to environmental chemicals. (See how to prevent illness at any age.)

Early puberty is a concern, medically speaking, because the body's production of estrogen increases during sexual development, and longer exposure to estrogen is a risk factor for breast cancer. It is too soon to say whether the current generation of young girls, who are the first to show such early signs of puberty, will have a higher rate of cancer in adulthood. But the new study may help lay a foundation for answering that critical question in the years ahead.

The trial, whose results were published Monday in *Pediatrics*, will continue to follow the girls for another five years, when most of them will experience menarche, the first period. Lead author Dr. Frank Biro, director of the division of adolescent medicine at Cincinnati Children's Hospital, hopes the ongoing study will help clarify the causes of early puberty. He speculates that its primary driver may be overweight and obesity, because estrogen is sequestered in fat tissue. But environmental exposures to chemicals including pesticides and endocrine-disrupting chemicals such as bisphenol A, commonly found in plastics, and phthalates, which are contained in many personal care products could also play a role.

Identifying those contributors may also answer help another important question about the timing of puberty: How early can it begin? The fact that the onset of puberty has not shifted earlier among African American girls over the last decade, says Biro, may simply reflect the fact that they have reached the minimum biological age at which sexual development can occur. "How young can you go? Maybe white populations have not arrived at that biologic minimum," he says. (See "The Year in Health 2009.")

Looking ahead, Biro and others are eager to study the potential effects of early maturation on health as the girls in the study reach adulthood: If the longer duration of puberty affects fertility or cancer risk, for example, can these effects be controlled?

For now, Biro's group is starting to analyze blood samples collected from the study participants in the hopes of identifying markers in the blood that would indicate early puberty. Those signs may help doctors recognize early puberty and become aware of its potential health consequences. "These findings are a wake up call that we should be thinking about prevention and urging adolescents to come in for preventive visits, to get routine breast exams, and learn to look for lumps and bumps," says Dr. Sarah Pitts, a pediatrician in the adolescent division of Children's Hospital Boston. "Time will only tell how early puberty will affect later health, but I do think the study makes it that much more important for people to go to doctor and get regular physical exams so we can learn what those health issues might be."

Source: <http://www.time.com/time/health/article/0,8599,2009341,00.html#ixzz0w63Xa32u>