

PittsburghLIVE.com**PITTSBURGH
TRIBUNE-REVIEW**

Environment, obesity suspected as factors in early puberty

By Anne Michaud
TRIBUNE-REVIEW
Saturday, May 18, 2002

One North Hills mother recently found herself doing something she had never anticipated: shopping for a bra for her 8-year-old second-grader.

Struggling to understand why her daughter was developing so early, Linda asked around and found another girl in the third grade whose breasts were growing.

"I haven't even decided how to talk to (my daughter) about this," says Linda, who didn't want to be identified for fear of embarrassing her daughter. "Frankly, I thought I'd have a few more years to figure it out."

In fact, time has grown shorter. Pediatricians have new guidelines from the American Academy of Pediatrics about when normal puberty begins. Girls who start to develop breasts and pubic hair at age 6 or 7 are not necessarily abnormal.

By age 8, 48 percent of African-American girls and 15 percent of white girls are showing clear signs of puberty, according to a study published in *Pediatrics*, the journal of the American Academy of Pediatrics. That's a year to a year-and-a-half earlier, depending on race, than previous research had shown.

Another study by the same researchers suggests boys are entering puberty up to half a year earlier than previously thought, some as early as the year between their ninth and 10th birthdays.

What's going on? Researchers suspect many things. Hormones and pesticides in food and milk might be prompting young bodies to mature. Additives in plastics and cosmetics are suspect, as is sex on television and the increasing rate of obesity among American children.

One study blames hormones in shampoo. The theories might sound wild, but consider the 1998 study of four Texas girls, including a 14-month-old, who developed breasts or pubic hair months after using hair products containing placenta, hormones or estrogen. The symptoms started to disappear after they

Web Links

- [Unusual suspects \(PDF\)](#)
- [Get Adobe Acrobat](#)

Tools

-  [Print this article](#)
-  [E-mail this article](#)
-  [Subscribe to this paper](#)
-  [Larger / Smaller Text](#)



stopped using the products.

Whatever the cause, early puberty often catches parents unprepared, says Dr. Joseph Sanfilippo, a pediatric/adolescent gynecologist with the University of Pittsburgh and Magee-Womens Hospital.

"We often see that discussion has taken place between the parents, but they have not talked to the patient, which is absolutely wrong," Sanfilippo says. "This 8-year-old may be way out of step with her peers and may be an object of ridicule. She needs reassurance."

The fine line between normal, early puberty and "precocious puberty," a medical condition that might require treatment or indicate an underlying problem, makes diagnosis difficult, Sanfilippo says. He and others say concerned parents should talk with their pediatricians.

Because early puberty is increasingly considered normal does not mean we should accept it, says Diana Zuckerman, executive director of the National Center for Policy Research for Women & Families, a think tank in Washington, DC.

"We don't pretend to know the reason, but certainly there is reason to believe there are environmental factors," she says. "We could try cutting back on certain kinds of exposures. We have nothing to lose."

Early development provides no benefits to girls, Zuckerman says. "No matter what they look like, these are little girls. How will they deal with the confusing feelings and with their effect on older boys and men?"

The research

Parents and pediatricians had long suspected that girls were growing up faster. The study that put the question to science was published in 1997 in *Pediatrics*, based on research by Marcia Herman-Giddens, a senior fellow with the North Carolina Child Advocacy Institute. She compiled reports of 17,000 girls between the ages of 3 and 12 who were patients in more than 200 pediatricians' offices around the country.

The study showed that the onset of menstruation had not changed for white American girls (12.88 years of age, on average), but it had dropped by several months for African-American girls (from 12.52 years to 12.16 years). The study did not include boys or other races.

However, other signs of puberty — pubic hair and breast development — had moved ahead significantly, Herman-Giddens found.

Before her research, the normal standards for puberty were set more than 30 years ago from a study of fewer than 200 girls in a British orphanage.

Based on the Herman-Giddens study and others, in 1999 the American

Academy of Pediatrics lowered the minimal age at which puberty can be considered normal from 8 to 7 for white girls and from 8 to 6 for African-American girls.

Two years later, in March 2001, two prominent associations of endocrinologists — doctors who deal with hormones — released a statement critiquing Herman-Giddens' methods. The Endocrine Society and the Lawson Wilkins Pediatric Endocrine Society said that while most doctors agree with the findings, more study is needed. Herman-Giddens did not use a random sample, critics say, and the girls were examined by observation only, leaving open the question of whether the development was breast tissue or fat.

At the same time, pediatric endocrinologist Paul Kaplowitz of Virginia Commonwealth University, was looking at just that question. In September, his study said that 6- to 9-year-old girls who had started developing breasts or pubic hair were significantly more overweight than girls of the same age who had not. The connection with obesity was strongest for white girls, but researchers said they do not know why. Weight is a factor because leptin, a protein found in fat cells, is believed to be one of the triggers for puberty.

Again, the American Academy of Pediatrics issued a bulletin to its members: Take weight and race into account when evaluating early puberty.

Dr. Silva Arslanian, a pediatric endocrinologist with Children's Hospital of Pittsburgh and a University of Pittsburgh professor, believes the connection with obesity is strong.

"Usually, obese children have early puberty," she says, adding that puberty can cause weight gain, so which factor came first can be difficult to discern.

Because so many variables are involved, Arslanian and others urge parents to talk to their child's doctor if they have questions.

"Hopefully, every kid is seeing their primary care physician once a year," she says.

In a small number of cases, early puberty can indicate a tumor of the reproductive organs, the pituitary gland or the hypothalamus. Head trauma can also trigger early puberty.

Precocious puberty is a hormonal abnormality in which children enter a period of rapid growth that may end too soon, before they reach their full adult height, according to Dr. Karen Klein, an endocrinologist with the Alfred I. duPont Hospital for Children in Wilmington, Del. If untreated with hormone-suppressing drugs, boys typically grow no taller than 5 feet 4 inches, and girls rarely reach 5 feet.

The age guidelines for precocious puberty — before age 7 in girls and age 9 in boys — overlap with normal, early puberty. Usually, a bone-age test is needed to tell the difference.

Following her landmark study of girls, Herman-Giddens undertook an examination of boys between 8 and 19. The study, which analyzed data from a national health survey between 1988 and 1994, found that 21 percent of African-American boys, 4.3 percent of whites and 3.3 percent of Mexican-Americans showed signs of starting puberty between their 9th and 10th birthdays.

The findings about boys, published in September, have caused less public stir. Perhaps that's because the changes — often accompanied by greater height and strength — are less troublesome.

They are also less noticeable, says Zuckerman of the Center for Policy Research.

"The breast development is much more obvious," she says. "I think, too, there is a sense that girls are becoming sexually active earlier, dressing more provocatively. It goes to the cultural pressures for girls to look sexy at the age of 8."

Reassuring children

Sanfilippo, the adolescent gynecologist, says the new findings mean parents must begin having "the talk" with kids as young as 6 or 7. Sex education should begin, he says, "when the parent feels the level of understanding is appropriate, when you can see that the child is asking questions."

A child in a healthy family handles early puberty much better, Sanfilippo says, because they have support, understanding and knowledge. "It's not such a psychological shock," he says.

Dr. Helen Egger, a child psychiatrist at Duke University, says early development can put girls at greater risk for depression, teasing and unwanted attention. She recommends that parents tailor their support to the girl's true age, not the age her grown-up appearance might suggest.

"Girls who develop early are seen by both adults and kids as older than they are, and they may be treated as older," Egger says. "It's important not to focus on this event changing her from one person to another."

Don't be afraid to be practical, though, Egger says. Her daughter began developing at 8.

"It turned out that when I brought up shopping for a bra, she was incredibly relieved," Egger says.

Some stores sell soft sport bras with smiley faces or flowers that are appropriate for younger girls.

Parents should also develop a practical plan for a girl's first period, Egger says, which happens about two to three years after breasts begin to develop.

Suzanne Leonberg, the school nurse at Richland Elementary School, says she keeps supplies in her office, as well as pamphlets for parents and daughters. When Leonberg is aware that a girl might begin menstruating, she lets the teacher know.

"I assure them that even the male teachers are aware that this can happen in the younger grades," Leonberg says.

Anne Michaud can be reached at amichaud@tribweb.com or .



Images and text copyright © 2004 by The Tribune-Review Publishing Co.
Reproduction or reuse prohibited without written consent from [PittsburghLIVE](http://PittsburghLIVE.com).

pubsidexx (5/9/2002)
slug on The Desk: pubsidexx
sent 05/09/2002 at 03:05 PM

My NewsEngin



Story

Prior versions: 0 ([make version](#))

Due: 04:00 PM on Friday, May 03, 2002
Assigned length: 12 inches

Never discard versions

This story has been **archived**.
You must un-archive it in order to send it to The Desk.

At 12p2, depth is 12.7 inches (566 words)

headline

subhead

Sidebar to early puberty story
description

Story:

When researchers demonstrated that children were starting puberty earlier, they naturally began looking for reasons. Man-made substances in the environment top the list.

However, the issue needs better research, said Dr. Samuel Epstein, a world-renowned expert on cancer research and chairman of the Cancer Prevention Coalition.

"I do believe the risk factors for premature puberty are not being discussed, aside from the obvious one, and that's obesity," Epstein said. "I believe it (early puberty) is not being adequately looked at."

One of the first suspects was an old bogeyman, milk produced by cows who have been injected with synthetic bovine growth hormone (rBGH) to stimulate their mammary glands. Epstein said a molecule in rBGH, Insulin-like Growth Factor-1, is known to stimulate breast growth, both normal and cancerous.

Ben & Jerry's Ice Cream, Stonyfield Farm Yogurt and others use only rBGH-free products, and their labels clearly state that. There are many reasons for that, according to Ben & Jerry's website, but a tie to early puberty is not one of them.

Joseph Mendelson, legal director of the Center for Food Safety, a Washington, DC-based environmental advocacy organization, said he supports further research of links between rBGH and early puberty. "It hasn't been adequately tested," he said.

"The age of girls entering puberty is decreasing, and we don't know exactly what's causing it," he said. "It very well may be the contents in the food supply are contributing to that."

Another suspected cause is endocrine disrupters, which some have nicknamed gender-bender chemicals. Chemists are just now learning to identify these in pesticides and herbicides, said Michael Hansen, a senior research associate with Consumers Union, which publishes Consumer Reports.

New research shows that the chemicals mimic the molecular structure of hormones and have disrupted

developing embryos of some animals. The gender-benders, for example, are thought to be responsible for the micro-penis of male alligators in Lake Apopka, Fla., which render them unable to mate.

A further culprit may be an additive used to soften plastics called phthalates. Phthalates are also found in cosmetics, nail polish, glue and perfume.

"They're sort of everywhere," said Hansen. "People are trying to figure out what to do. Do we yank everything?" He said that European countries have been eliminating products gradually over the last five years.

Diana Zuckerman, executive director of the National Center for Policy Research for Women & Families, said American manufacturers voluntarily removed phthalates from pacifiers and bottle nipples after a spate of bad publicity.

"There are a lot of options out there," she said. "We could either make nail polish without phthalates, or we could advise parents not to put nail polish on little kids. There's a lot that can be done if the information's available, but the information is not generally available."

Additional Notes: (will not be published)



Last modified by Anne Michaud on 05/16/2002 at 03:36:50 PM