

My husband came home from work a few weeks ago looking troubled. "Hard day?" I asked. He nodded. "I had to do an STD test on a 9-year-old girl."

reasons and risk factors

Being the wife of a doctor, I've heard shocking stories before, but this one knocked the wind out of me. "Was she abused?" No, sexually active with her sixth-grade boyfriend, he explained. Then the real punch to the stomach—while her breasts had developed, she hadn't begun menstruating.

This wasn't an odd case of one in a million. Hospitals around the globe are reporting sexual activity and pregnancies in 10-year-olds. But does this surprise us? I've seen thongs bedizened with cartoon characters sold beside training

bras. Toy cars advertised with sexy, anime girls and have the warning: "Ages 3 and up." Thanks, note taken.

Yet we still wonder, what's going on with our kids? The childhood years seem to be in steady decline as children become mini-adults far before their parents 30 years ago. We can't simply write it off as a product of a technology-savvy generation. That makes it sound like a natural evolution with natural causes. The truth is far scarier. It's diagnosable. The medical community calls it precocious puberty, the early development of sexual characteristics in girls and boys. This often manifests in two ways: physically and/or psychologically.

### The Physical

"Girls are at increased risk," explains biologist Sandra Steingraber, PhD, in her report The Falling Age of Puberty in U.S. Girls. "Girls get their first periods, on average, a few months earlier than girls 40 years ago, but they get their breasts one to two years earlier."

Reports indicate that 14 percent of girls begin breast development at age 8; 1 percent at age 3. Likewise, 8-year-old boys are developing underarm and pubic hair, enlarged genitalia, acne and deepening of voices. We can't blame the media for changing our children's hormones. So what's causing this rapid sexual development?

Unfortunately, there's no one reason. Researchers are examining a list of risk factors including obesity, formula feeding, man-made hormones, psychosocial stressors, television viewing and media use.

Obesity is one of the top factors under investigation, but the causes are hard to distinguish. Steingraber provides a disturbing example: Today, more mothers give birth too soon to babies with low birth weights. Those preemies have a higher risk for obesity. Their obesity increases the probability of early puberty, which in turn results in more weight gain. So which came first, the chicken or the egg? Researchers hope to find an answer.

Speaking of chickens and eggs, many media headlines blame growth hormones. Hearing this, even I bypassed the poultry section for a good month. News flash—according to the United States Department of Agriculture (USDA), there are no synthetic hormones in pork or poultry products. Seriously, go make your daughter a ham omelet. I promise she won't sprout chin hairs. But beef and dairy, be wary. Hormones do exist.

According to the Mayo Clinic, they're called hormone disruptors. These artificial chemicals are found in everything from food and water to plastics and consumer products. The only safeguard is risk reduction. Try to use nontoxic chemicals in your home, eat organic food, drink filtered water, and most importantly, be attentive to your children's health. That goes for their psychological health, too. We often forget that children's mind are just as affected by environmental factors as their bodies.

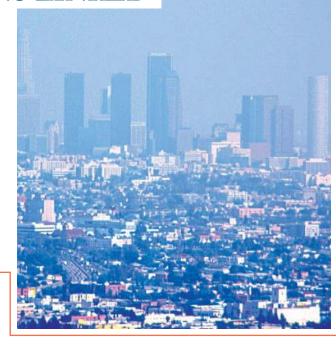
## ENVIRONMENTAL TOXINS LINKED

A recent study published in the Journal of Pediatrics suggests that environmental pollutants can be directly linked to precocious puberty in girls. Specifically, researchers are concerned about the toxin mycoestrogen zearalenone (ZEA), produced by the Fusarium fungus species.

Physicians at the University of Pisa, Italy, studied 17 girls diagnosed with precocious puberty. Of those, six tested positive for high levels of ZEA, which

has similar properties as the female hormone estrogen and mimics animal growth agents used in breeding. Exposure may advance sexual development in children and increase premature births and low birth weights in pregnancies.

The study identifies the need for a worldwide investigation into the negative physical effects of herbicides, pesticides and other environmental toxins, such as ZFA.



#### The Psychological

At Halloween, my niece sent me a photograph of herself in costume. One look at the sheer fabric and exposed midriff, and I asked my husband, "Is she a stripper?" A belly dancer, he clarified. With eyes drawn up like Mata Hari, she smiled confidently at the camera, more 16 than 10. When I was her age, I was the blue fairy from Walt Disney's *Sleeping Beauty*. Times have changed.

Psychological precocious puberty is the most apparent and seemingly harmless, yet it's the most damaging to children's health. We see it every day on the news: young celebrities—too young—partaking in adult actions, but unprepared for adult consequences. This early sexual awakening is not limited to the famous. Our own children are watching and emulating behavior patterns they see in the media.

A report by the American Psychological Association indicates that the exposure of children to sexualized media images increases the risk for mental health problems. The American Association of Pediatrics strongly discourages television viewing for children under the age of 2 and a limit of two hours for older ones. Yet continually, I witness friends and family sitting their toddlers in front of the TV and watching *Grey's* 

Anatomy with their 9-year-olds. The experts are telling us, no! This is detrimen-

tal. Perhaps we should start listening.

Take the kids to the park, read a book, play, imagine, create, get them moving in the opposite direction of the TV, Internet and video games. We, the parents, must be proactive. "It's important to keep kids as young as possible for as long as possible," says Dr. Shari Nethersole, a physician at Children's Hospital in Boston, and an instructor in pediatrics at Harvard Medical School. "Even though your 8-year-old daughter may be showing some of the body changes associated with puberty, it doesn't mean she has to give up her childhood."

#### Heed the Medical Experts

No matter the causes, the results are undeniable. Precocious puberty can lead to obesity, mood swings, breast cancer, testicular cancer, sterility and stunted growth, not to mention depression, social problems, possible substance abuse, early sexual activity, pregnancy and STDs. We can't ignore or excuse this trend any longer. "It is a multi-causal threat...that ultimately requires a comprehensive, integrated, unified response," Steingraber says.

# Treatment THERAPIES

According to the Mayo Clinic, the first step is to make sure your child has no underlying medical condition, such as a tumor producing excessive hormones. A tumor can be surgically removed and the progression of puberty halted.

For those children diagnosed with precocious puberty, gonadotropin-releasing hormone (GnRH) analogue therapy is the current treatment. This includes monthly injections of a medication, such as leuprolide, histrelin or nafarelin acetate, that stop sexual development. The children continue this regimen until they reach a normal age of puberty. As soon as they stop receiving the medication, puberty begins. GnRH analogue therapy has proved successful for many families. If your child shows signs of early puberty, discuss options with your pediatrician.