

# NYUPHYSICIAN

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## What Pregnant Women Should Know About Their Thyroid

**Low thyroid levels can affect the mother's health and her child's development.**

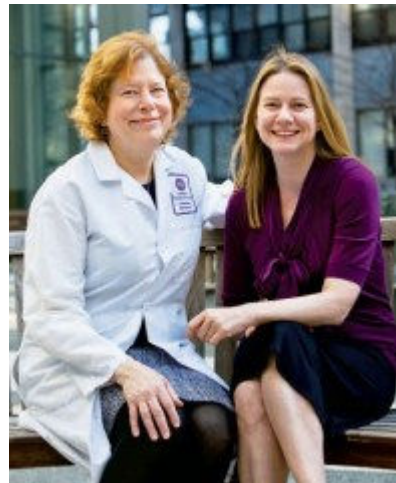
IN THE FALL OF 2008, fashion and photography editor Kristen Mulvihill hadn't even unpacked from her honeymoon when her new husband, David Rohde, a New York Times reporter, was kidnapped by the Taliban in Afghanistan and held for more than half a year.

Within weeks of his dramatic escape and their emotional reunion in Dubai, the couple learned she was pregnant. "We'd missed 8 months or so—we wanted kids," Kristen says. But now there were new hurdles. At 40, with an under-active thyroid, which ran in her family, Kristen knew her pregnancy needed to be closely monitored. "I'd heard of women miscarrying due to thyroid problems, and I had been worried about my ability to get pregnant." Before the 1970s, when newborns began to be routinely tested for thyroid function, a cousin of hers had been born without a thyroid gland and had developed mental delays as a result.

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The first symptoms of Kristen's hypothyroidism—fatigue that went beyond being merely sleepy or tired, hoarseness, weight gain, constipation, dry hair and skin—had started a decade earlier. "I knew some of the symptoms from my mom, who was treated for hypothyroidism in her 40s," says Kristen.

On the advice of her gynecologist, Kristen sought out endocrinologist Loren Wissner Greene, MD, clinical associate professor in the Department of Medicine at NYU Langone Medical Center, who monitored her thyroid level every two weeks throughout her pregnancy, raising her dose as the pregnancy progressed.



Dr. Loren Greene and Kristen Mulvihill

The thyroid, a butterfly-shaped gland in the front of the neck "is a major pacemaker of many, many body functions—brain, heart rate, blood vessel tone, bowel functions, reproduction, appetite, and weight," Dr. Greene says. Pregnancy itself increases the body's need for thyroid hormone, making hypothyroidism the most common thyroid problem in pregnancy. For women already

taking thyroid hormone, as in Kristen's case, half may need a dosage increase right away, often as much as 30 percent or more.

For Kristen, the constant monitoring and dose adjustments were worth it. She experienced a normal pregnancy and delivered a healthy baby girl, Ella, now almost 2. During the pregnancy, the couple wrote a book about the Taliban kidnapping, *A Rope and a Prayer*, published in 2011. "Ella was due April 10, and the book was due April 1," she says, with a laugh.

At least 5 percent of Americans, mostly women, are hypothyroid, and that number rises with age, according to the National Institute of Diabetes and Digestive and Kidney Diseases. Of the 4 million births in this country each year, some 2 to 2.5 percent of moms—or 100,000 women—are hypothyroid, says Susan Mandel, MD, an endocrinologist at the Perelman School of Medicine, University of Pennsylvania.

"Early on, the baby relies on mom's thyroid hormone," because the fetal thyroid doesn't kick in until the 12th week of pregnancy, says Dr. Mandel. "Increased dosage needs can start at the six or seventh week of pregnancy, often before the first obstetrician visit."

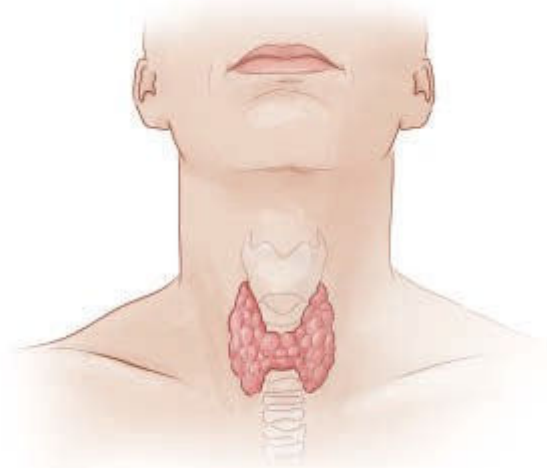
Inadequate levels of thyroid hormone in the fetus can result in poor neural and cognitive development, even mental retardation, if not treated in the first month of life. For the mother, the two most serious consequences are preterm delivery and pregnancy-induced hypertension.

Even after the fetal thyroid begins to function, the fetus still depends on the mother's intake of iodine to make the thyroid hormones thyroxine, or T4, an amino acid core surrounded by four iodine atoms, and triiodothyronine, or T3, with three iodine atoms.

In the United States, as of 2009, only half of prenatal vitamins contained iodine, and their measured content was only 75 percent of their labeled content. The World Health Organization recommends 250 mcg daily, some of which is obtained through diet. For pregnant women, supplementing the diet with 150 mcg of potassium iodide daily is important. "Any woman who's pregnant needs that," Dr. Mandel says.

Postpartum thyroiditis is another common thyroid condition in pregnancy, affecting 4 to 10 percent of pregnant women. It has been linked to postpartum depression. The cause is unknown.

Margaret Gould, 36, a school guidance counselor, had no history of thyroid disease when, after her second child was born in the spring of 2011, she rapidly lost 25 pounds. "I lost the weight so fast—in just a few weeks—I was below my prepregnancy weight," she says. Already anxious and exhausted after the birth, she noticed that her hair started falling out as soon as she stopped breastfeeding. "In the first phase of the illness, the thyroid gland just pours out thyroid hormone, which explains the rapid weight loss," says Dr. Greene. "The second phase—hypothyroidism—starts a month or so after delivery." Most women regain normal thyroid function within a year after giving birth, though the condition tends to recur with subsequent pregnancies.



Today, Margaret takes thyroid hormone and has her thyroid function tested regularly. "I feel better. I'm still tired, and I've been have trouble sleeping, but it's hard to tease out whether it's the thyroid or having two kids under 4," she says. Her new baby, now 9 months, is "amazingly" healthy, she says. "He's crawling and getting up on his knees. He looks like the Gerber baby."

Ilona Shpayzman, 30, a Brooklyn speech pathologist, became hypothyroid after her thyroid was surgically removed because of a cancerous tumor. Doctors told her it was most likely caused by exposure to nuclear radiation in her native Belarus after the Chernobyl disaster in 1986, when she was 4.

A year ago, with the help of thyroid hormone replacement and careful monitoring by Dr. Greene, Ilona and her husband had a healthy baby boy, their first child. "I live checkup to checkup," she says. "I stay positive and take care of myself."

Ilona's family moved to New York when she was 10. By her mid-20s, she was in graduate school, working and engaged. "I was tired all the time, but I had a lot on my plate," she says. "I just thought it was normal." One day, sitting at the kitchen table over coffee, her mother noticed a swelling at the base of her neck and insisted she get it checked.

In early 2009 surgeons removed her entire thyroid gland and then treated her with radioactive iodine, which detects and destroys residual thyroid cancer cells. Scans after the treatment showed cancer cells in her lungs. "That was probably the lowest point in my life," she says. "It knocked the wind out of me." Six months later, Ilona had a second round of treatment. This time, the news was good. The cancer was gone.

Six months after that, following her honeymoon, she learned she was pregnant. "It was a shock, but it was nice shock." •

—AUBIN TYLER