

Fibromyalgia, Hypothyroidism, Thyroid Hormone Resistance

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# **Pregnancy**

[Q&As are placed in reverse chronological order. In other words, the latest Q&As come first. Earlier ones are further down the page.]

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# September 6, 2007 (Introduction to this Q&A)

Question: Thank you so much for taking questions. I'm having trouble getting any help with what I think boils down to a thyroid problem. My husband and I can't get pregnant. My fertility doctor said I have high thyroid antibodies and high cholesterol and LDL. My TSH is sometimes at the top of the normal range and sometimes slightly high. For several years, I've had lots of hypothyroid symptoms: fatigue, brain fog, forgetfulness, unexplained weight gain, hair loss, puffy skin, low body temperature, constipation, and my main problem of not being able to get pregnant. The fertility doctor is only concerned with me getting pregnant and ignores my thyroid problems. He's tried egg donations but this has failed three times. I have researched the relationship of infertility to hypothyroidism, and now it's obvious that I'm the one, not my doctors, who is educated about the relationship. My fertility doctor and my family doctors know nothing about it at all. Neither one of them will let me try thyroid hormone. They won't read any of the articles I've given them and say they weren't taught about any such relationship. They are both very nice men but frankly they are unbelievably uneducated about this relationship. What am I to do?

**Dr. Lowe:** I sincerely regret that you haven't been able to get pregnant. You may, of course, have some fertility problem unrelated to thyroid hormone. However, in my view—having studied and written about the issue at great length—too little thyroid hormone regulation is a *common* cause of infertility. (The largest chapter in my book *The Metabolic Treatment of Fibromyalgia*[1,pp.509-571] is on gynecological problems common among women who are deficient in or resistant to thyroid hormone. Infertility is one of those problems, along with diminished sex drive, irregular periods, heavy or prolonged menstrual bleeding, painful or difficult menstruation, failure to ovulate, and other gynecological problems.)

For our readers who haven't done the research as you have, let me briefly cite the evidence for the relationship between infertility and hypothyroidism. I suggest you advise your family doctor and your fertility doctor both go back to the basics and pull out their copies of *Guyton's Textbook of Medical Physiology*. Arthur C. Guyton, MD, with whom I had the privilege of lengthy discussions over a several years, was the world's foremost medical physiologist at the time. He wrote, for normal sexual function, thyroid hormone secretion *must be* close to normal.[2,p.836]

Of course, many other researchers and doctors have echoed Dr. Guyton's statement. And they've long recognized hypothyroidism as a cause of impaired fertility.[3][4][5][6][9][10] Tragically for many couples, as you already know, many—perhaps most—modern conventional doctors seem oblivious to this well-affirmed fact.

**Readers' Comments** 

To mention a few studies that I cited in <u>The Metabolic Treatment of Fibromyalgia</u>, [1,p.532] the fertility of rats decreases a few weeks after their thyroid glands are surgically removed, and the rats who become pregnant have fewer newborns in their litter.[198] Human women with mild hypothyroidism may ovulate and conceive. But their pregnancies often end with spontaneous abortion in the first trimester, stillbirth, or premature birth.[3][6][12,p.1052]

Davis reported that pregnancy is rare among hypothyroid women.[6] And Gerhard concluded that subclinical hypothyroidism makes some women infertile.[11] He also reported that while the conception rate among normal women was 16%, among hypothyroid women the conception rate was only 6%.

Tkachenko and his colleagues studied 14 women who had primary hypothyroidism. All of them had anovulatory infertility.[13] This means, of course, that the women were infertile because they didn't ovulate. The researchers wrote, "Substitution thyroid therapy resulted in the recovery of the normal ovulatory cycle in all but one patient who had secondary pituitary microprolactinoma." They reported that 8 of the 14 women became pregnant.

Of course, T4-replacement therapy often fails to relieve infertility. Burrow[7] and Nikolai et al.[8] reported that *low* doses of T4 did not benefit women with in-range TSH levels who had PMS, premenstrual syndrome, and infertility.

I believe these reports. Small amounts of T4 often suppress patients' TSH levels and in turn decrease thyroid gland secretion of both T4 and T3. In my clinical experience, these patients usually suffer worsened symptoms of hypometabolism (often misdiagnosed as fibromyalgia) after beginning the use of low dosages of T4. However, among female patients under the care of my treatment team, high enough doses of T3 have often improved or completely relieved menstrual disturbances, PMS, and infertility without adverse effects—regardless of whether, before treatment, the women had TSH levels that were within or outside the reference range.

But what about the practical issue you have to deal with: finding a doctor who'll cooperate and learn whether effective thyroid hormone therapy will make you fertile? One option is for you to interview fertility doctors. You can, through this process, look for one who meets two criteria. These are that he or she (1) is educated about the relationship of hypothyroidism to infertility, and (2) will work with you to learn whether effective thyroid hormone therapy will relieve your infertility.

Another option is to give up on the generally tough-to-educate conventional doctors and switch to natural medicine doctors—those who describe their style of practice as "functional medicine," "natural medicine," "alternative medicine," or some other such descriptor. You're likely to find that these unconventional doctors will conscientiously work with you for your best interest. And in contrast to many conventional doctors, you'll find that these other doctors actually read, study, and learn along with their patients. As a result, they advance their knowledge to better serve their patients. I suspect that looking for one of these doctors will be the best course of action for you and your husband.

Again, I sincerely regret your infertility and that your doctors won't cooperate. If I were you, I wouldn't settle for that. You and your husband deserve to fulfill your desires for children. If your infertility is related to hypothyroidism, I see no reason for you to allow uneducated doctors to cause the two of you to remain barren. Effective thyroid hormone therapy—not T4-replacement!—may be all you need to have all the children you want.

#### References

- 1. Lowe, J.C.: The Metabolic Treatment of Fibromyalgia. Boulder, McDowell Publishing Co., 2000.
- 2. Guyton, A.C.: Textbook of Medical Physiology, 8<sup>th</sup> edition. Philadelphia, W.B. Saunders Co., 1991.

- 3. Thomas, R. and Reid, R.L.: Thyroid disease and reproductive dyfunction: a review. *Obstet. Gynecol.*, 70(5):789-798, 1987.
- 4. Goldman, S., Dirnfeld. M., Abramovici, H., and Kraiem, Z.: Triiodothyronine and follicle-stimulating hormone, alone and additively together, stimulate production of the tissue inhibitor of metalloproteinases-1 in cultured human luteinized granulosa cells. *J. Clin. Endocrinol. Metab.*, 82 (6):1869-1873, 1997.
- 5. Goldman, S., Dirnfeld, M., Abramovici, H., and Kraiem, Z.: Triiodothyronine (T<sub>3</sub>) modulates hCG-regulated progesterone secretion, cAMP accumulation and DNA content in cultured human luteinized granulosa cells. *Mol. Cell. Endocrinol.*, 96(1-2):125-131, 1993.
- 6. Davis, L.E., Leveno, K.J., and Cunningham, F.G.: Hypothyroidism complicating pregnancy. *Obstet. Gynecol.*, 72: 108, 1988.
- 7 Burrow, G.N.: The thyroid gland and reproduction. In *Reproductive Endocrinology*. Edited by S.S.C. Yen and R.B. Jaffe, Philadelphia, W.B. Saunders, 1986, p.424.
- 8. Nikolai, T.F., Mulligan, G.M., Gribble, R.K., Harkins, P.G., Meier, P.R., and Roberts, R.C.: Thyroid function and treatment in premenstrual syndrome. *J. Clin. Endocrinol. Metab.*, 70:1108, 1990.
- 9. Gerber, P.: Thyroid and pregnancy. Schweiz. Rundsch. Med. Prax., 82(32):854-857, 1993.
- 10. Goldsmith, R.E., Sturgis, S.H., Lerman, J., and Stanbury, J.B.: The menstrual pattern in thyroid disease. *J. Clin. Endocrinol. Metab.*, 12:846, 1952.
- 11. Gerhard, I., Eggert-Kruse, W., Merzoug, K., Klinga, K., and Runnebaum, B.: Thyrotropin-releasing hormone (TRH) and metoclopramide testing in infertile women. *Gynecol. Endocrinol.*, 5(1):15-32, 1991.
- 12. Longcope, C.: The male and female reproductive systems in hypothyroidism. In *Werner and Ingbar's The Thyroid: A Fundamental and Clinical Text*, 6<sup>th</sup> edition. Edited by L.E. Braverman and R.D. Utiger, Philadelphia, J.B. Lippincott Co., 1991, pp.1052-1055.
- 13. Tkachenko, N.N., Potin, V.V., Beskrovnyi, S.V., and Nosova, L.G.: Hypothyroidism and hyperprolactinemia: *Akush. Ginekol.*, 10:40-43, 1989.

#### July 26, 2007

**Question:** I recently read a book posted on his website about undiagnosed viruses preventing women from getting pregnant. My husband and I have been trying to get pregnant for three years with no success. I suspect that the book may be right, and I may have a viral infection that is preventing me from getting pregnant. I was on T4-replacement for several years, but I never felt well on it. Because of this, my family doctor switched me to Armour Thyroid. I am now on 2 grains. My TSH level is now suppressed, and this concerns me. But what am I to do? If I have to suppress my TSH level to strengthen my immune system, am I in danger of causing more problems?

**Dr. Lowe:** It may be true that your inability to become pregnant over the last three years is due to some microbial infection, such as a low-grade, chronic viral infection. Even so, microbial disruption of body functions (maybe fertility included) often results from too little thyroid hormone regulation of the immune system. (I extensively cover the research evidence for this in Chapter 3.13 of *The Metabolic Treatment of Fibromyalgia*).

Many patients free themselves from chronic or recurrent infections by switching from T4-replacement (usually with Synthroid in the US and Canada) and using more effective products such Armour. I've been involved with thyroid hormone therapy for the last twenty years. During those years, many times, women patients of mine have became pregnant after switching from T4-replacement to Armour or similar products. Of course, they had to use doses high enough to be effective, not the namby-pamby doses that doctors typically allow their patients to use. Perhaps for some of these women, fertility came about from enhanced immune function from the more effective thyroid hormone therapy.

The 2 grains of Armour you're taking may seem high to some doctors. However, this wasn't the case going back some forty years or so ago. Before then, doctors allowed patients to use higher dosages. The dosage range that was safe and

effective was generally 2 to 4 grains.

As you can see from this, you're at the lower end of the historic safe and effective dosage range. In view of this, you may recover strong immune function and fertility simply by gradually and cautiously increasing your dosage of Armour. This may work for you by enhancing your immune system and relieving and infection. On the other hand, it may work simply by better regulating your sex hormone system. For your purposes, it probably doesn't matter.

Whether your TSH is suppressed or not is, in my opinion, irrelevant; I know of no scientific evidence that a suppressed TSH level will adversely affect you in any way.

#### September 11, 2004

**Question:** Soon after my best friend had her first baby, she developed thyroiditis, hypothyroidism, and fibromyalgia symptoms. She was in an awful state for several years on <u>T4-replacement</u> until an osteopath changed her to Armour Thyroid. I am now pregnant for the first time, and because of my friend's experience, I'm concerned about developing thyroiditis. How likely is it?

**Dr. Lowe:** In a 1999 review of studies,[1] Dr. J.H. Lazarus answered your question. He wrote that after delivering their babies (that is, "postpartum"), between 5% and 9% of women develop thyroiditis. Most of the women with thyroiditis have elevated thyroid peroxidase antibodies.

Some of the women become temporarily hypothyroid about 19 weeks after they deliver. Other women, however, become permanently hypothyroid. After three years, 30% are permanently hypothyroid. As many as 50% are permanently hypothyroid 7-to-9 years later.

Dr. Lazarus listed the most common symptoms of women with hypothyroidism associated with postpartum thyroiditis: low energy, aches and pains, poor memory, dry skin, and cold intolerance.

A point that Dr. Lazarus makes is well worth emphasizing: Some women with postpartum thyroiditis suffer from hypothyroid symptoms even when their TSH, T3, and T4 levels are "normal." If the patient's thyroid gland is damaged by thyroiditis, however, the thyroglobulin level in the blood and the iodine level in the urine may be increased. So if the postpartum patient with hypothyroid symptoms has "normal" TSH, T3, and T4 levels, she should ask her doctor to test her thyroglobulin blood level and urinary iodine concentration.

I hope this is helpful. Very best wishes for a healthy pregnancy and delivery.

## Reference

[1] Lazarus, J.H.: Clinical manifestations of postpartum thyroid disease. *Thyroid*, 1999 Jul;9(7):685-689, 1999

#### **January 21, 2003**

**Question:** I have a question about my thyroid test results and a path of treatment. I had very high thyroid test results and am concerned that they are so abnormal. My free T4 level was 4, TSH was 27, thyroglobulin was 117, and thyroid peroxidase antibodies was 493. I'm seeing my gynecologist for the treatment of what she thinks is hypothyroidism. She thinks my pregnancy and childbirth four months ago caused the hypothyroidism. She put me on of 0.05 mg of T4 for three weeks, and then 0.1 mg for one week. My concern is that these very high levels might indicate something more serious than my hormones being out of whack from child birth. Are numbers this high consistent with hypothyroidism resulting from pregnancy? What tests could determine whether pregnancy is responsible and not something more serious. Or should I just wait to see whether the T4 helps? Thanks for your help.

**Dr. Lowe:** Yes, your abnormal thyroid test results are probably related to your pregnancy—or, more specifically, to changes in your immune system related to

your pregnancy. When thyroid disease appears or worsens after delivery, the cause is usually autoimmune thyroid disease. Researchers say this occurs in about 5% of women.

Changes in immune system function during and after pregnancy are well known. Considering these changes helps us to understand the onset or worsening of autoimmune thyroid disease after pregnancy, which you're obviously experiencing. I'll briefly explain the dynamics of immune function and autoimmune thyroid disease during and after pregnancy.

Early in pregnancy, the woman's immune system typically becomes more active, and in late pregnancy, it becomes less active. When it becomes less active, if the woman has autoimmune thyroid disease, it becomes less active, and her antithyroid antibody levels decline. The reduced activity of the woman's immune system may serve to lessen the change that her body will reject her fetus.

Just before or after delivery, the woman's immune system is likely to become more active again. The increased activity will worsen any autoimmune disease she has, or if she didn't have autoimmune disease before, it may now appear. If she already had autoimmune thyroiditis, it will worsen at this time. If so, her levels of thyroid antibodies, TSH, and thyroid hormones will be out of their reference ranges —meaning that according to lab standards, her results will be abnormal. The severity of a woman's thyroid gland dysfunction usually parallels the severity of her thyroiditis; the higher her antibody levels, the lower her thyroid hormone levels, and the higher her TSH level.

Her antibody levels are likely to peak three-to-seven months after she delivers her baby. Then they'll probably start declining. But even a year after she delivers, her antibody levels are likely to still be higher than at or shortly after delivery. If she's like most women with this problem, her antibody levels will eventually decrease to lower levels. They may even disappear. But if she's like some other women, her antibody levels will remain high. If she has more pregnancies, her severe thyroiditis may recur, and finally, she may develop chronic autoimmune thyroiditis and permanent hypothyroidism.

Doctors should warn women who have thyroid disease that it may worsen after pregnancy. In fact, they should caution all women that thyroid disease may appear for the first time after they deliver. If after delivery, a woman experiences symptoms such as depression, nervousness, sluggishness, fatigue, and mood swings, she should undergo an evaluation for thyroid and metabolic status.

I want to state *emphatically* that the woman should *not* settle merely for having thyroid function tests and antibody levels checked. If her doctor doesn't also know how to perform a clinical evaluation—assessment of her history, symptoms, and physical exam findings—the doctor should refer the woman to another doctor who does not how. Usually, an endocrinologist is the wrong choice. In general, these specialists have virtually no training in or knowledge of clinical medicine or experience in doing clinical evaluations. The best choice is an alternative doctor knowledgeable about hypothyroidism and experienced in treating patients with products that contain both T4 and T3 *as part of a holistic metabolic regimen*. If the woman does consult an endocrinologist, she should make sure the specialist isn't a dogmatic advocate of T4-replacement therapy; instead, she should see to it that the endocrinologist is enlightened enough to treat hypothyroid patients as alternative thyroid doctors do.

If the woman is hypothyroid, she may choose to abstain from taking thyroid hormone to see if her thyroid function returns to normal. This makes sense, of course, only if she isn't troubled with symptoms of hypothyroidism. If she does have symptoms, it's usually best that she begins thyroid hormone therapy. If she does, she should choose a thyroid hormone product that's likely to be effective. That means it should be a product that contains both T4 and T3. Using a preparation that contains only T4 is likely to leave her suffering from hypothyroid symptoms. And chances are, a doctor will diagnose her continuing symptoms as

fibromyalgia, chronic fatigue syndrome, or some other so-called "new disease." Based on the diagnoses, the doctor will prescribe a variety of drugs to try to control her symptoms—symptoms he fails to recognize as those of hypothyroidism.

Whether the woman takes thyroid hormone or not, she should insist that her doctor reevaluate her condition at close intervals. This is important because the woman's thyroid, metabolic, and symptom status may waver with changes in the severity of her thyroiditis. If she's taking thyroid hormone, changes in her thyroiditis may require that she alter her dose to maintain optimal metabolism and remain symptom free.

From this summary, I hope it's clear that, indeed, your clinical picture is consistent with thyroid disease following pregnancy. My concern isn't that you have some other dread disease that may be producing your extreme lab results; rather, it's that you won't get effective treatment. Your lab test results suggest you're hypothyroid, and you may need thyroid hormone therapy. But I can't calculate symptoms into my opinion since you didn't mention whether you have any. For many women with postpartum thyroid disease, however, incompetent treatment of their hypothyroidism is where they begin having horrific experiences with conventional medicine. Hopefully you'll be treated competently.

I wish you the very best for good health so that you can enjoy your new child's early years.