Mrs. A, a forty-year-old woman, came to see me after gaining a lot of weight. She was frustrated and she wanted to get off her medications. She had tried to lose weight, but it was just too hard. She exercised and cut her calories and saw very few results. So she just gave up and decided to be a happy fat person…but she wasn’t. And now her health was deteriorating. She was on birth control pills for irregular periods, Lipitor for high cholesterol, Effexor for depression, ibuprofen for pain and her doctor told her that she needed to lose weight because she was a prediabetic.

She had been healthy all of her life, until after the birth of her second child, when she never could lose the baby weight, and she never could get her energy level back. She was tired all the time. It was especially hard to get going in the morning and she learned very quickly that if she stopped during the daytime, it was all over. She had to keep herself moving or else she would fall asleep and have a very difficult time getting going again. She progressively gained more weight and she lost that sense of zest and vitality that she used to have. Her doctor assumed that it was due to taking care of two children and put her on Effexor. This helped with her migraines and low-grade depression.

A year later, she had to go on Lipitor because her cholesterol was rising. Later that year, she had a hard time staying warm, and felt cold all the time. Her hands and feet were always cold. She became more constipated, her periods got heavier, and she developed more severe PMS. She also got stiff and achy.

She wondered whether she might be hypothyroid and asked her doctor to draw thyroid tests on her. He got a TSH (thyroid stimulating hormone) and a thyroid profile. He patted her on the shoulder when he got the lab tests back and reassured her that everything was normal, she was just stressed out, and that this was common as one got older. He put her on birth control pills to control her PMS and heavy periods.

The next year when she complained of progressively more pain her doctor told her that she had fibromyalgia and she had to learn to relax and make certain that she slept well. He gave her Ambien to assure good sleep and ibuprofen for the pain.

Years went by and she developed prediabetes and continued to gain weight even when she tried again to clean up her diet and lose weight.

Then, she came to see me for a second opinion. I recognized that all of her symptoms and illnesses fit the pattern of hypothyroidism. When I examined her, she had dull skin and hair. She was a big woman, but had especially large hips and thighs. Her skin was dry and rough. The skin over her elbows and heels was thick. Her thyroid was slightly enlarged and she had bags beneath her eyes. The lateral halves of her eyebrows were thin. Her skin was doughy, pale and pasty. Her hands and feet were cold and her oral temperature was 97.5°F. She knew her temperature was low. She laughed that if it got up to 98.6°F she was sick. That was a fever for her.

I ordered thyroid tests that were slightly different from the ones her family doctor ordered. I ordered a TSH and free T4 (thyroxine), the weak prohormone made by her thyroid gland. I also ordered a free T3 (tri-iodothyronine). The liver and other tissues convert T4 to the more powerful activated hormone, T3, before it can do its work.

I also had the patient go home and
check her first morning temperature before getting out of bed. She checked this in her mouth, using an alcohol thermometer, not a digital thermometer, and she kept the thermometer there for three minutes. She recorded this just after the first few days of her menstrual cycle. Not surprisingly, her temperatures were very low, 95-96°F range.

When she returned to the office, I showed her that her TSH and her T4 were within “normal” range, but her T3 was very low. Her body was not making the most important thyroid hormone. Based on her symptoms, her physical appearance, her blood work, and her low morning temperatures, I diagnosed her with hypothyroidism.

Thyroid hormones have very critical functions in the body as we grow up. Initially they are responsible for the development of the brain in infants and children. Later they coordinate our development in puberty.

As adults, they determine the rate of our metabolism and our body temperature. If your temperature is low 24/7, how many calories are you not burning today?

Thyroid hormones also tell our power plants (our mitochondria) how much food to turn into energy each day. Mitochondria are where we burn the calories we eat and make it into energy. It’s also where we “burn” the fat when we exercise. If we don’t have a strong signal from thyroid hormone, we can’t burn the food we eat every day in our power plants because the plants are only working part time. What does our body do with the extra calories we don’t burn? Stores it in fat.

Besides getting fatter, what other symptoms result from a weak thyroid signal to the mitochondria? If our power plants are only working part time, we don’t make enough energy for our cells to thrive. Our cells begin to die slowly, so we age faster. We have the most mitochondria in cells that do the most work... brain, muscle (including heart muscle), and liver. We get brain fog, fatigue, memory problems or psychiatric illness, as our brains don’t function as well. We get weaker and achier as our muscles fail. We get more toxic, lose overall energy, and eventually our liver enzymes can go up as our livers fail. Think of all the complications of taking a statin drug to lower your cholesterol; these drugs can also cause hypothyroidism and damage your mitochondria if you have the wrong genes.

Illnesses directly linked to low thyroid function include diabetes mellitus type two, cardiovascular disease, congestive heart failure, high cholesterol, obesity, fibromyalgia, chronic fatigue, chronic pain, depression and menstrual problems.

Back to the patient:

I started her on Armour Thyroid, which is dried pork thyroid. Yes, it smells nasty, but it doesn’t taste like it smells. Many doctors erroneously think that this is not a reliable source of thyroid. This is unfortunate. There were quality control issues with Armour years ago, but not in the past decade. It not only has the pro-hormone T4 that is in Synthroid, Levoxyl, or Unithroid, it also has activated T3, which is also in Cytomel. Beyond that, it has small amounts of other thyroid hormones, and many of the ingredients that are needed to help convert the T4 into T3. Again, T4 is a very weak hormone, and it has to be converted into T3 for maximal effect.

If one has a liver problem, i.e., a fatty liver (which she did), or a deficiency of selenium or zinc (she was low in both), you won’t convert T4 into T3, so Synthroid would not work for her. Many toxins will interfere with this conversion, as will drugs (including beta-blockers, How To Test Yourself for Hypothyroidism

Barnes Basal Temperature Test

Place a thermometer at your bedside, and as soon as you wake up, before you step out of bed, place the thermometer under your tongue for at least 3 minutes.

If you are T3 deficient, you will find your basal temperature to be below 97.8°F (average throughout the day is 98.6°F).

If your first-thing-in-the-morning temperature is consistently low, it likely means that your basal (resting) metabolic rate is also low. You may also feel cold and tired.

Alternately you can place the thermometer under your arm for 10 minutes. If temp is below 97.6 you may be Hypothyroid.
lithium, and steroid drugs)

Having too much or too little cortisol, our primary “stress” hormone, also interferes with the optimal function of thyroid hormones.

Toxins can bind up the thyroid hormone as it floats through your blood, block the receptor site, or even damage the thyroid receptor. That is why some people have to decrease their exposure to toxins or get detoxed before they will even respond to thyroid hormone.

I put Mrs. A on a low glycemic diet. I also had her avoid wheat and other glutsens that are known to attack the thyroid in sensitive people. She started on supplements to support the optimal function of thyroid hormones, including iodine, selenium, zinc, vitamins A and D, and healthy fats. I had her eliminate all trans-fats and high fructose corn syrup from her diet, both of which can interfere with thyroid function. I had her stop drinking chlorinated water and put a filter on her shower to remove the chlorine. She could not afford to implement a reverse osmosis filtration system in her home, which would also eliminate the fluoride that is currently in the water in her community. Bromine in wheat products and other food items, chlorine and fluoride all interfere with thyroid function.

Eliminating the food additives and the toxins that compete with thyroid hormone function in addition to giving her Armour Thyroid, helped her start feeling better within just a couple of weeks. She had new energy and her chronic pain disappeared. She stopped her ibuprofen. Over the next several months her depression lifted, her migraines disappeared and she stopped the Effexor. Her cholesterol came down and she stopped the Lipitor. Her periods returned to normal, and her PMS cleared up so she was able to discontinue the birth control pills.

### Symptoms of Hypothyroidism

- fatigue, weakness, loss of energy
- weight gain, difficulty losing weight
- depression & depressed mood
- joint & muscle pain, headaches
- dry skin, brittle nails
- brittle hair, itchy scalp, hair loss
- irregular periods, PMS symptoms
- breast milk formation
- calcium metabolism difficulties
- difficulty tolerating cold and lower body temperature
- constipation
- sleeping more than average
- diminished sex drive
- puffiness in face & extremities
- hoarseness
- bruising/clotting problems
- elevated levels of LDL (the “bad” cholesterol) & heightened risk of heart disease
- allergies that suddenly appear or get worse
- persistent cold sores, boils, or breakouts
- tingling sensation in wrists and hands that mimics carpal tunnel syndrome
- memory loss, fuzzy thinking, difficulty following conversation or train of thought
- slowness or slurring of speech
She even began to walk in the morning, and actually enjoyed it for the first time in years.

Her dry, dull, lifeless hair became shiny and vibrant; her thick, dry skin became supple and soft; her rough elbows became smooth; her cold hands and feet no longer bothered her husband because they were warm; and she dropped 30 pounds over six months. She continued to monitor her morning temperatures, which slowly rose to the normal range. She had been between 95-96F before; now she stays between 97.8F and 98.2F.

What are the take home points?
1. Hypothyroidism is an epidemic. Conservative estimates are that 20% of women are hypothyroid. Some scientists and physicians believe over 50% of women and almost as many men are hypothyroid. This is contributing to the obesity epidemic.
2. A “normal” blood test does not rule out hypothyroidism. It is a clinical diagnosis.
3. Taking Synthroid will not necessarily cure hypothyroidism.
4. Recognition and treatment of hypothyroidism will reverse many chronic illnesses.
5. Medications and environmental toxins damage the thyroid gland and the ability of thyroid hormones to do their jobs.
6. Nutritional deficiencies cripple thyroid hormones even if hormones are within “normal” range on blood tests.

If you have symptoms of hypothyroidism, take your early morning temperature before you get out of bed. Use an alcohol thermometer, not a digital thermometer. Digital are not as reliable. Men and post-menopausal women who are not on hormone replacement therapy can take it any time of the month. Younger women should take it a day or two after their period starts or when they are not on birth control pills. Post-menopausal women on HRT should take it while off progesterone. If they are on continuous therapy, any day will do. If your temperatures are consistently lower than 97.8F, work with a physician who can determine whether you are hypothyroid and treat your condition.

Take care of yourself.

For more information:
• Go to Broda O. Barnes Research Foundation at: www.brodabarnes.org
• Read Hypothyroidism Type 2, The Epidemic, by Mark Starr, MD
• or the chapter on thyroid in Ultra-Metabolism by Mark Hyman, MD
• What Your Doctor May Not Tell You about Hypothyroidism by Ken Blanchard MD, PhD
• Living Well with Hypothyroidism by Mary J. Shomon

Dr. Elizabeth Vaughan, a physician for 28 years practices at Vaughan Medical Center, located at 1301-A West Wendover Avenue in Greensboro. Visit www.VaughanMedical.com for more information, or call 336-808-3627 for an appointment. See ad on pages 3, 21.