Hypothyroid Conditions – Common and Overlooked (Part 2)

Dr. Kate Thomsen and Silky

Diagnosing hypothyroidism is detective work initiated by careful attention to a person's symptoms. Symptoms will describe a person with a "slow motor" (fatigue, weight gain, depressed mood, feeling cold, constipation, dry hair and brittle nails). On physical exam a health care provider will look for: Dry, straw-like hair, or thinning hair on the scalp and extremities, thinning of the outer third of the eyebrow hair, a puffy face and thick tongue with ridges on the sides, dry-parchment like skin, brittle nails that may have longitudinal ridges or be splitting, swollen or puffy feet and ankles (fluid in the tissues), thick callouses on the bottom of the feet, extremities that are cool to the touch, and slowed reflexes. There can be weight gain and slow pulse.

Not everyone with a hypothyroid condition will have all the signs and symptoms but there will be enough indication to ask further questions. Since one of the commonest symptoms is fatigue, it is important to investigate for other non-thyroid causes of fatigue: a stressful lifestyle, insomnia, yeast overgrowth, Lyme and other stealth infections, peri-menopause, and insulin resistance. In some cases we find that the thyroid can perform its function as soon as the deficiencies of needed raw materials were replaced. Checking nutritional status through a diet history and/or blood testing for specific nutrients is extremely valuable. Checking for excess intake of foods that reduce the ability of the thyroid gland to use iodine (goitrogens) is another clue. These include: canola oil, vegetables from the brassica family (eg, cabbage, broccoli, brussels sprouts..), cassava, millet, certain isoflavones isolated from soybeans, brominated vegetable oil in Orange Gatorade and Mountain Dew, and sodium fluoride in toothpaste. Many daily servings from this group may cause hypothyroidism. It is important to check for other hormone imbalances of estrogen and testosterone as Polycyclic Ovarian Syndrome and imbalanced or excessive hormone therapy can interfere with the effectiveness of thyroid hormones. People reporting a family history of thyroid disease are more likely to have a hypothyroid condition explaining their symptoms.

Exposure to environmental pollutants that accumulate in our bodies can have an impact on thyroid hormone production and/or activity. Exposures that may slow down thyroid function include: a personal history of radiation treatment to the head, neck, chest and tonsil area, growing up or living/working near or at a nuclear energy plant, heavy metal exposure (mercury, cadmium, lead) and exposure to elements that displace iodine (fluoride, chloride and bromide). A recent study showed that exposure to phthalates and bisphenol-A (think plastic water bottles and canned food liners) can reduce thyroid hormone levels by as much as 10%. Medications that can interfere with thyroid hormone functioning includes: Atrovent Nasal Spray (Ipratropium bromide), Spiriva inhaler for COPD (Tiotropium bromide), Flovent inhaler (fluticasone propionate) and Flonase Nasal Spray (fluticasone propionate), and Tagamet (cimetidine)/Zantac (ranitidine)/ Pepcid (famotidine)/Axid (nizatidine) – antacids that may reduce the activity of a crucial thyroid enzyme.

The investigation continues by assessing risk factors for the most common cause of hypothyroidism - autoimmune hypothyroid. In Hashimoto's Thyroiditis, an individual's own immune system attacks their thyroid proteins. It is more common in people who already have autoimmune conditions (adrenal insufficiency, pernicious anemia, insulin-dependent diabetes mellitus, vitiligo and celiac disease…) and in persons with a family history of autoimmune disease. Autoimmunity is associated with allergy, stress, and leaky gut. To investigate further, there is a discussion of known food allergies, food avoidance and consideration of testing for celiac (gluten/wheat) and other allergies. Significant stressors (physical and psychological) will be evaluated as well – recent infection? trauma? sources of inflammation? personal life/lifestyle? (Stressed out people may have low blood pressure and dark circles under their eyes. They may report difficulty getting out of bed, and that they have higher energy at night, exercise intolerance and salt cravings.) A detailed digestive history will be elicited with attention to episodes of travel associated diarrhea, stomach virus, food poisoning, chronic GI symptoms and medications that can promote leaky gut (ibuprofen, steroids, antibiotics…) . The gastrointestinal tract is a major player in immune functioning and imbalances in the gut have been associated with autoimmunity.

History, signs and symptoms are important because testing for hypothyroidism can be falsely negative. The most common way that a hypothyroid condition is diagnosed is with a blood test for Thyroid Stimulating Hormone (TSH). A high TSH blood level typically indicates a low functioning thyroid gland while a normal TSH indicates normal thyroid function. This is a hot area of debate among clinicians because people will have many symptoms of hypothyroid with a "normal" TSH. Testing TSH indicates only pituitary production. Many clinicians and researchers believe that pituitary hormone levels alone are not sufficient to measure the function of the gland they regulate (thyroid). The reference ranges for TSH has been suspect for years; the upper limit went from ~ 10 to ~ 4.5 in the past 20 years. In 2002, The National Academy of Clinical Biochemistry issued new guidelines suggesting that the TSH range may be too wide and miss many individuals with borderline thyroid disease. With a sensitive screening assay, they found 95% of the population had a TSH level between 0.4 and 2.5 uIU/ml. Adopting this new reference range would diagnose 15 million more Americans with hypothyroidism. The American College of Clinical Endocrinologists suggested a new TSH reference range of 0.3 – 3.0 uIU/ml. However, the other Thyroid Associations recommend continuing to use the 0.45 – 4.5 uIU/ml reference range. Additionally they recommend not treating until TSH is over 10 mIU/L.

Besides the TSH, additional blood testing should include Free T4, Free T3, Reverse T3 with TPO antibodies and Thyroglobulin antibodies. Many people will have normal thyroid blood levels with elevated antibodies. This is early Hashimoto's and should be treated to lower the level of antibodies and preserve the thyroid gland from excess damage. Other people will have a slightly elevated TSH and normal T4 and T3. These people are generally told they are "normal" when they really have Mild Thyroid Failure (formerly called Subclinical Hypothyroid). They should also be treated.

Other potentially relevant testing includes: basal body temperature (consistently < 97.6 is hypothyroid), micronutrient deficiency testing, cell membrane analysis, iodine testing, immune cytokine tests (TH1/TH2 pathways), gluten/gliadin antibodies, other food allergy testing, adrenal stress index, and heavy metal testing among others.

Treatment consists of synthetic or natural T4 (thyroxine), T3 (triiodothyronine) or a combination of T4/T3 (dessicated thyroid – powdered/dry porcine sourced). Treating with thyroid hormone is an art with the goal of alleviating the symptoms and avoiding side effects. Obviously first comes nutritional intervention, avoidance of toxins and interfering medications, stress reduction, balancing hormones, allergy reduction/elimination (especially gluten), and repairing leaky gut.

Dr. Kate Thomsen's office for holistic health care is located in Pennington, NJ. She is board certified in Family Medicine, certified in Integrative/Holistic Medicine, and an Institute for Functional Medicine Certified Practitioner. She has been practicing Functional Medicine for over 15 years. For more information see www.drkatethomsen.com or call the office at 609-818-9700. You can find additional articles on nutrition on the website: www.drkatethomsen.com