Functional Hypothyroidism: Controversial but Worth Considering

By Gerard L. Guillory, M.D.

Recently, I have been receiving a growing volume of inquiries about functional hypothyroidism. The notion of functional hypothyroidism is controversial, but the more I learn about it, the more I believe that it not only merits serious consideration, but that it is also quite common.

The idea is that thyroid problems—which can cause fatigue, weight gain, difficulty staying warm, and constipation—sometimes elude detection by traditional blood tests. Alternative practitioners have maintained for years that going beyond these traditional screenings can, in many cases, help physicians identify problems that otherwise wouldn't be detected. This, in turn, can lead to an appropriate therapeutic approach.

If you are experiencing symptoms typical of hypothyroidism yet conventional screenings haven't produced a conclusive diagnosis, I would encourage you to talk with your physician about functional hypothyroidism. Many medical practices, including The Care Group, can run a battery of tests that go beyond traditional screenings and then help you find a therapeutic approach to your specific problem. In some cases, thyroid-hormone supplementation is needed; in others, simple changes in diet and nutrition are adequate.

To understand functional hypothyroidism, you first need to know a few things about the thyroid gland, which is located in the front of the neck. The thyroid is part of a system of glands that interact to promote health. Among these is the pituitary gland, which releases a substance called thyroid stimulating hormone, or TSH.

When TSH stimulates the thyroid gland, the thyroid releases two key hormones, both of which are derived from dietary iodine and the amino acid tyrosine. One of these hormones is thyroxine, or T4, and the other is triiodothyronine, or T3. Both T3 and T4 are then released into the blood stream and carried throughout the body, where they control metabolism. T4 is produced in much larger quantities thanT3, and most T4 is eventually converted to T3. T3 is the active thyroid hormone and, at the cellular level, actually "turns on" your metabolism.

When evaluating possible thyroid problems, physicians traditionally have screened only for abnormal TSH and T4 levels. If these are normal, many physicians conclude that no thyroid problem is evident, and they begin considering other possibilities.

I'm convinced that, in many of these cases, additional thyroid-related testing might be in order. The problem could involve, for example, the body's ability to convert T4 to T3; excessive binding of thyroid hormones by proteins in the blood; or problems with the thyroid-hormone receptor. Problems with excessive binding of thyroid hormones or defects of the thyroid hormone receptor can render thyroid hormones ineffective.

Other factors might be at play as well; for example, if the adrenal gland isn't producing appropriate amounts of cortisol, the thyroid won't function normally. (Cortisol plays a key role in the body's response to stress. Too much or too little cortisol can slow metabolism.)

Iodine deficiency also can affect thyroid functioning, as can low ferritin levels. Both iodine and ferritin are essential for appropriate production and function of thyroid hormones. Vitamin-D deficiency also can lead to symptoms of hypothyroidism.

These are only a few of the potential causes of functional hypothyroidism. The important point is that if you are experiencing symptoms of hypothyroidism, you should know that traditional screenings may not help you identify or solve the problem.

When I see patients who are experiencing these symptoms but who have normal TSH and T4 readings, I order additional blood screenings so that I can evaluate a broader range of possible causal factors. Meanwhile, I usually also recommend that these patients start taking appropriate dietary supplements.

Depending on the individual patient's needs, these supplements might include iodine, iron, anti-oxidants, vitamin D, magnesium, Omega-3 fatty acids and probiotics. The specific kinds and amounts of supplements that an individual patient should take will vary, so I recommend that you speak with a physician before taking supplements.

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