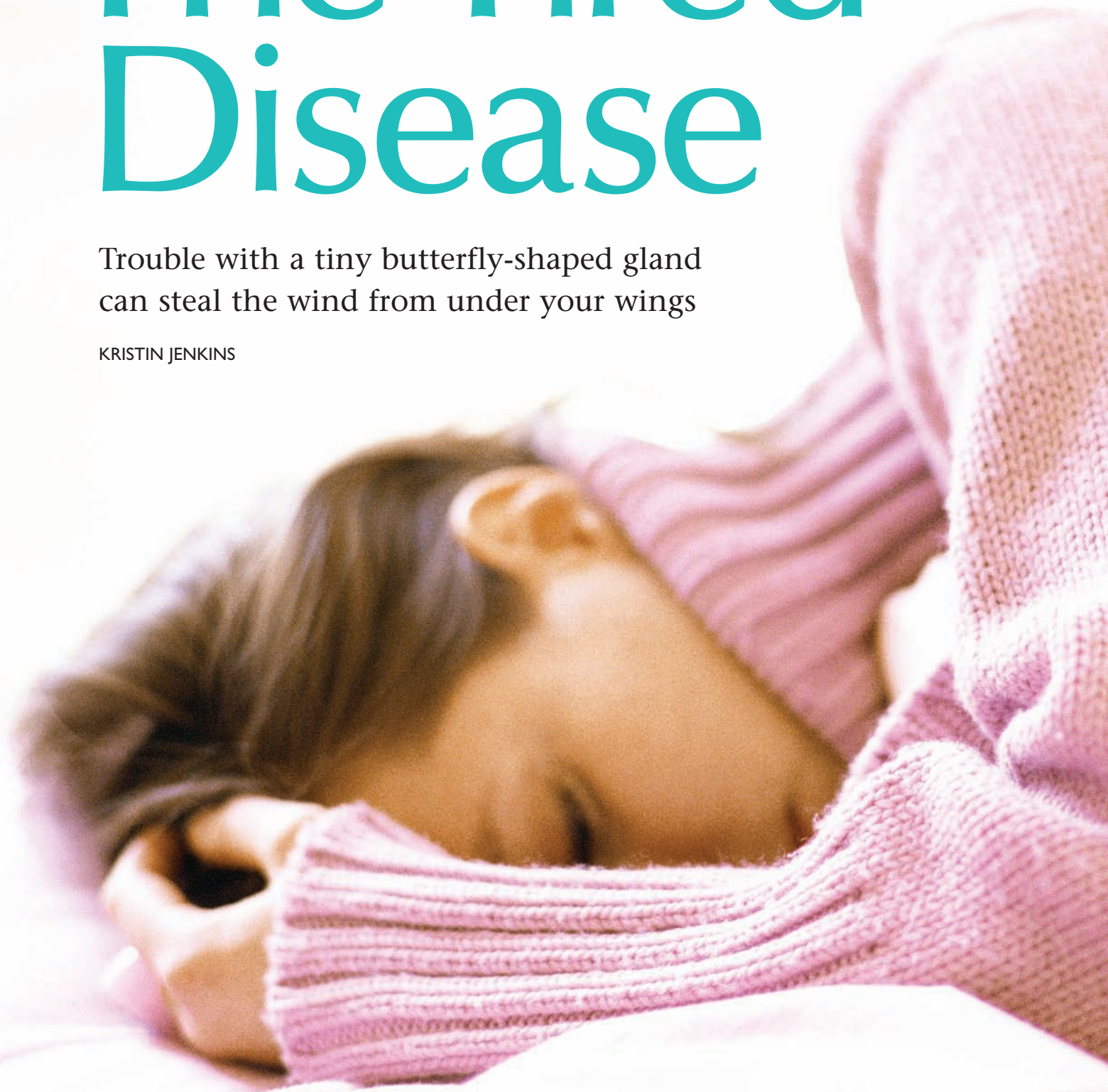


The Tired Disease

Trouble with a tiny butterfly-shaped gland can steal the wind from under your wings

KRISTIN JENKINS





Kathryn Hayward spent the better part of five years struggling with the effects of hypothyroidism before she was diagnosed. From her last year of high school and into the early years of her career as a journalist, she experienced extreme fatigue, had difficulty digesting food and “generally felt lousy,” she says.

“Everything took a lot of effort,” recalls Kathryn, a Toronto magazine editor, now in her mid-30s and a mother of two. “I’d go out for a walk and suddenly have to sit down on a park bench or a window ledge. I literally couldn’t take another step. At work, I’d give all my energy and when I got home, I’d have to lie down. I couldn’t even talk or formulate a sentence.”

One day, an office colleague commented that Kathryn didn’t seem to be herself anymore, so she decided to seek medical advice. “A lot of women’s magazines talk about unexplained weight gain as a reason to get your thyroid tested,” she says. “But weight gain is a minor symptom. A far more serious one for me was my loss of enjoyment of life and even my sense of self.”

Kathryn’s condition is also known as underactive thyroid, and it occurs when the small butterfly-shaped gland located at the base of the neck on either side of the windpipe fails to produce sufficient amounts of two thyroid hormones: triiodothyronine (T3) and thyroxine (T4). These two hormones regulate your metabolism, an umbrella term that refers to all the chemical processes in a living organism that produce and store energy, sustain life and regulate growth and development.

Thyroid function is actually controlled by another tiny gland called the pituitary. Located in the brain, the pituitary releases

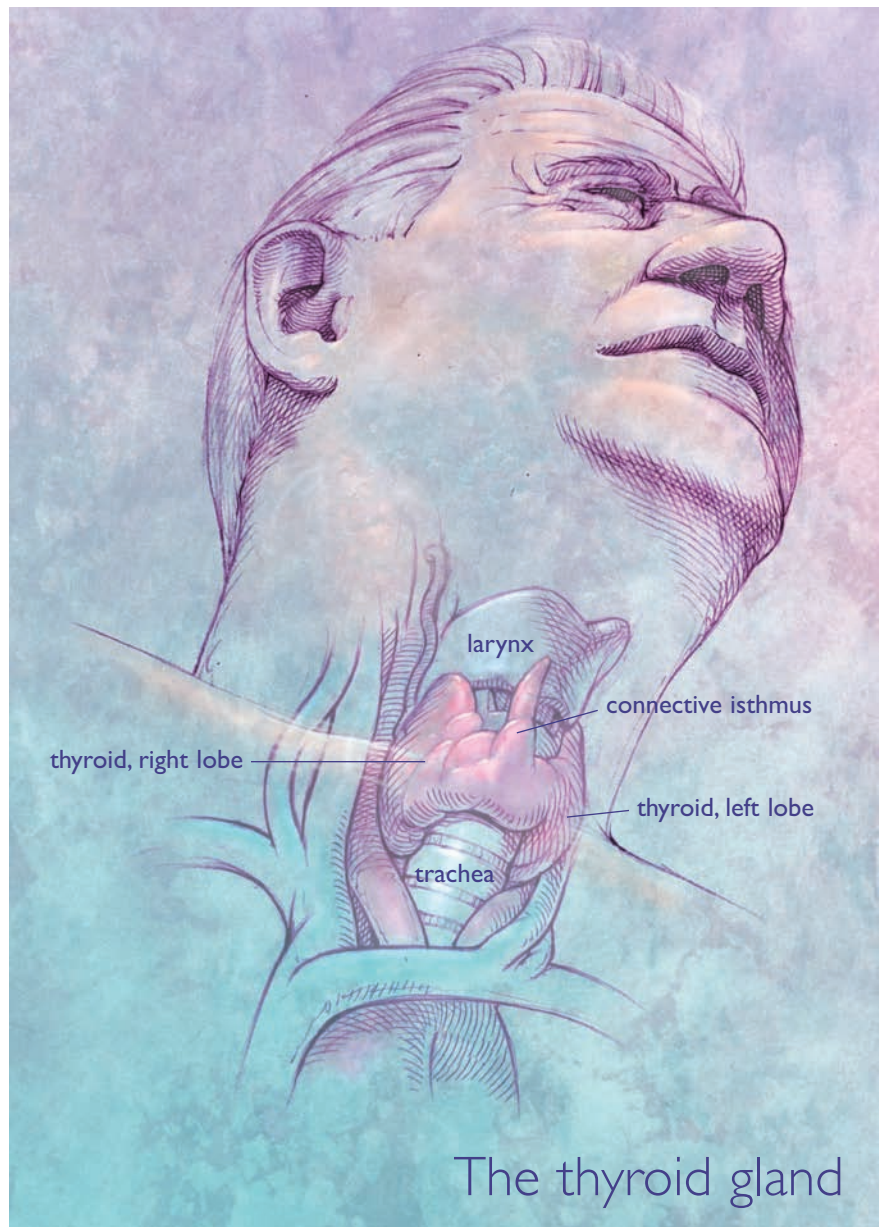
thyroid-stimulating hormone (TSH), which signals the thyroid to make T3 and T4. In rare cases, the pituitary gland may not make enough TSH, leading to hypothyroidism. This condition is almost always associated with other disorders because the pituitary controls other organs, such as the adrenals and gonads, as well as human growth.

But the most common cause of hypothyroidism is a destructive attack on the thyroid by the body’s own immune system. This is an auto-immune condition known as Hashimoto’s thyroiditis (Kathryn has this). “It’s the immune system making an antibody against the thyroid,” explains Dr. William Singer, a consultant physician in the department of endocrinology at St. Michael’s Hospital in Toronto. “The condition is inherited, and symptoms come on gradually. It is four to five times more common in women than men.”

In other cases, thyroid surgery, radioactive iodine (used to treat overactive thyroid) or radiation (used to treat certain cancers) may lead to hypothyroidism. This condition may also occur before birth, when the thyroid gland fails to develop properly. “In the newborn, an underactive thyroid can have irreversible consequences that may be both progressive and permanent,” says Singer. “That is why all newborns are routinely checked for hypothyroidism.”

MASTERFILE

Other disorders, such as high cholesterol, high blood pressure, fluid retention in the lungs and anemia, can all be worsened or complicated by unrecognized hypothyroidism



THYROID STATS

Approximately two Canadians in 100 have hypothyroidism.

More than 10 million — or one in three — suffer from some type of thyroid condition.

Of these, as many as 50% are undiagnosed.

— *The Thyroid Foundation of Canada*
(www.thyroid.ca)

Iodine, a chemical essential for both physical and mental development, is needed for healthy thyroid function. Thanks to the widespread use of iodized salt and vegetable oil, most people receive sufficient iodine in their daily diet. But the most common thyroid abnormality is goitre — an enlargement of the thyroid, usually with nodules. This condition occurs frequently in countries whose diets, unlike North America's, lack iodine.

The most common thyroid disorder is hypothyroidism. The other main type is hyperthyroidism, or Graves' disease, in which the thyroid produces too much hormone. This, too, tends to run in families. There appears to be a slight rise in the prevalence of hypothyroidism in Canada, but no clear consensus from experts about what's causing it. Environmental toxins are being examined as a possible cause.

Early diagnosis can be tricky because the disease tends to progress slowly. Its symptoms are often vague and can mimic other problems such as anemia or depression (see "Symptoms of Hypothyroidism," p. 29). Sometimes, subtle changes in emotions or behaviour are the only visible signs of early thyroid disorder. "The problem with diagnosing an underactive thyroid is

that the symptoms are non-specific,” notes Singer, who is also an associate professor of medicine at the University of Toronto. “The most frequent symptom is fatigue, which can also be a manifestation of poor sleep.”

So what’s a little fatigue and maybe a bit of weight gain? It may not seem like a big deal but, in reality, untreated hypothyroidism can have devastating health consequences. In addition to poor mental and physical performance, untreated hypothyroidism can lead to elevated blood cholesterol levels and heart disease.

Other serious disorders, such as high blood pressure, fluid retention in the lungs and anemia can all be worsened or complicated by unrecognized hypothyroidism, points out Dr. Patrick M. Doran, chief of the department of endocrinology and director of the metabolism program at Montreal’s Royal Victoria Hospital and McGill University Health Centre. “Since hypothyroidism impairs the metabolism, the body’s ability to break down certain medications can also become impaired, increasing the risk of side effects and interactions with other drugs,” he explains. And by the law of unintended results, some medications — such as lithium, which is used to treat bipolar disorder — are also known to increase the incidence of hypothyroidism.


The good news here is that the treatment for hypothyroidism is straightforward and effective. Although her diagnosis was many years in coming, Kathryn started to feel transformed after two or three weeks of treatment. “It’s not like you take a pill and it’s instantly better,” she explains. “You feel that you’re gradually becoming yourself again. You can tell a joke because your quick thinking has returned.”

Treatment consists of thyroid hormone replacement with synthetic T4 in the form of a pill taken every day for the rest of your life. Initially, blood tests are performed every six to eight weeks to establish the correct dose. Then, blood tests are performed annually to check thyroid hormone levels, including total serum T3 and TSH.

“Insist on having your thyroid hormone levels measured periodically, especially if you have several symptoms of underactive thyroid, a family history of thyroid disease or some other autoimmune disease, such as type 1 diabetes,” says Doran, also an assistant professor of medicine at McGill.

Getting diagnosed is particularly important if you’re thinking about becoming pregnant because an underactive thyroid in the mother can have a negative effect on the developing fetus. “Some well-designed studies following the children of hypothyroid women into their school years have found that the offspring of untreated women were often developmentally disadvantaged compared with those born of treated mothers,” says Doran. “Many pregnant women are therefore screened for hypothyroidism by their physicians, and during pregnancy, hypothyroidism treatment is typically intensified.” Similarly, women who have had difficulty conceiving or who have had miscarriages should also be screened for hypothyroidism.

Kathryn discovered first-hand the impact of pregnancy on her thyroid function. During her second pregnancy, she slid into a “funky slump” in the second trimester, feeling exhausted and out of sorts. A visit to her endocrinologist confirmed that her medication needed adjustment. Within 10 days of being on her new regimen, she felt much better.

Given that the treatment of hypothyroidism is relatively straightforward, current research is focused on what causes the immune system to attack and progressively destroy the thyroid gland in the first place. “The triggers behind this process are still very mysterious,” says Doran. “We hope that there may soon be a way to prevent or reverse this immune destruction, thereby eliminating the need for thyroxine replacement.” 



SYMPTOMS OF HYPOTHYROIDISM

According to the Hormone Foundation (the public-education affiliate of the Chevy Chase, Md.-based Endocrine Society), hypothyroidism affects the body’s energy storage system (metabolism), causing it to slow down. Common symptoms include the following.

- Feeling sluggish and tiring easily
- Moderate weight gain (five to 10 pounds)
- Inability to tolerate cold
- Dry pale skin and reduced perspiration
- Hair that is coarser, drier or thinner than usual
- A slow pulse and a slow weak heart rate
- Constipation
- Muscle aches, stiffness and weakness
- Depression
- Menstrual irregularities

For more information, go to www.hormone.org.