

A photograph showing a person's feet standing on a white digital scale. A pink measuring tape is draped across the scale and the person's feet, symbolizing weight management and measurement.

Difficulty Managing Your Weight?

It May Be your Slow Metabolism

by Dr. Angeli Chitale, ND

Weight management is a delicate subject which has cultural, gender, and age biases, which are deeply rooted in society. Recently, in our attempt to balance some of these negative body messages, as a society we are moving towards a more realistic inclusive definition of healthy weight.

However, weight gain can be a warning sign of underlying metabolic and/or hormonal imbalances which could also pose a serious health risk. This article looks at naturopathic approaches to assessment, diagnosis, and management of underlying metabolic and hormonal conditions which can lead to unhealthy weight, and provides some tips and tools for healthy weight management.

Your Thyroid and Metabolism

Your thyroid is responsible for the calories you burn at rest, also known as your basal metabolic rate (BMR). It is like a background program that is constantly running. The impact of it reaches every single organ and cell in your body.

Low body temperature syndrome is a metabolic condition which negatively affects your metabolism. It is:

- A persistent but reversible slowing of the metabolism;
- Often brought on by the stress of illness, injury, or emotional trauma;
- Often worsened in stages with subsequent stress episodes;
- The cause of low body temperature and associated low-thyroid (hypothyroid) symptoms;
- A feeling that “something is wrong” which often doesn’t respond well to improved rest, diet, exercise, or stress management alone;
- A condition which often shows normal thyroid hormone levels in blood tests;
- Often reversed with a special thyroid treatment; and
- Often associated with other chronic illnesses and or toxicity.

Predisposing Factors

Low body temperature syndrome is common for those whose ancestors survived famine, such as:

- Irish, Scot, Welsh, American Indian, Russian, etc. Most susceptible of all seem to be those who are part Irish and part American Indian.
- Under multiple or severe circumstances, people of any nationality can develop low body temperature syndrome.
- About 80% of Wilson's Temperature Syndrome sufferers are women.

For people who are more prone to developing WTS than others, their symptoms tend to:

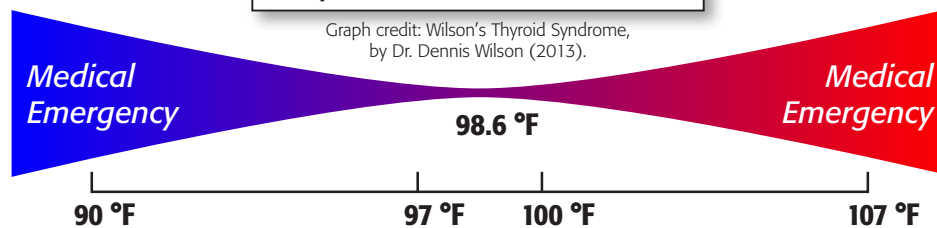
- Come on earlier in life; so early that some patients may not even know what it feels like to be normal;
- Worsen gradually over time, if left untreated; and
- Fail to respond to various therapies without much improvement, including medication (thyroid hormone, antidepressants, mood stabilizers, etc.).

Common Symptoms of Low Thyroid Function (WTS)

- Weight gain, gradual increase over time despite eating well and exercise;
- Dry skin and/or hair loss unresponsive to most treatments;
- Feeling tired / difficulty waking up or waking up unrefreshed;
- Depression/anxiety;
- Constipation;
- Elevated cholesterol;
- Premature ageing;
- Low libido; and
- Fertility issues / difficulty conceiving.

Shading Represents Temperature-Related Problems

Graph credit: Wilson's Thyroid Syndrome, by Dr. Dennis Wilson (2013).



How Can Low Body Temperature Cause So Many Symptoms?

Enzymes are special proteins which spark chemical reactions in the body. All metabolic actions that take place in our bodies are activated by enzymes. Enzymes depend upon their shape for their function. When enzymes are not the right shape, they cannot function optimally, resulting in mismanagement of the body's entire metabolic system.

Factors Affecting Enzyme Function

- Body temperature;
- pH (how acid or alkaline body fluids are);
- Mineral levels (catalyst for enzyme reactions and buffers for detox pathways); and
- Cellular toxicity (metabolic waste accumulation).

When the body temperature is too low, nearly all the enzymes in the body function less effectively. This can cause a very wide variety of complaints.

High fevers (42 °C / 107 °F) can cause brain damage and even death, and very low body temperatures (< 32 °C »/ 90 °F) can also be life-threatening.

Likewise, a temperature a little above normal (say 38 °C / 100 °F) is plenty of reason to feel badly and be excused from school or work. Temperatures that are just below 37 °C / 98.6 °F can easily explain a classic set of symptoms. To function optimally, the body must be at the optimal temperature: As close to 37 °C / 98.6 °F as possible.

To test this, the most accurate way is to take your temperature every three hours after waking, three times a day, to record your metabolic cycle. This is more accurate than lab tests alone.



Hormone Imbalances Related to Weight Gain and Low Body Temperature Syndrome

In my 15 years of treating low temperature syndrome, I have seen cases where hormones play an important role in weight management. Adrenal function and high cortisol, insulin, and blood sugar levels; estrogen dominance; menopause; liver function; and medication use, when out of balance, have an impact on a person's ability to maintain healthy weight.

Adrenal Hypofunction

Low adrenal function has four phases which show distinct hormonal pictures.

Research done on medical students subjected to prolonged stress of medical school show an initial phase of elevated adrenaline (acute phase) followed by elevated cortisol (three months of stress) followed by a gradual decline, first in adrenaline, then in both adrenaline and cortisol (six to nine months).

High cortisol levels in the blood (phase 2) slows metabolism by altering thyroid function. Cortisol blocks the conversion of thyroid hormone (T_4) to active thyroid hormone (T_3) and favours the creation of reverse T_3 (rT_3). This induces low body temperature syndrome. High rT_3 levels are seen on blood tests in patients with low body temperature.

Impact on weight: High cortisol levels are correlated with midtruncal obesity or "apple-shaped" fat distribution, which is associated with cardiovascular and diabetes risk in men and women.

Insulin Dysregulation: Reactive Hypoglycemia and Prediabetes

Insulin is a hormone produced by the pancreas in response to the food you eat. Think of insulin like an all-season entry pass for sugar to enter the cells of the body from the blood. Once inside cells, sugar is used as fuel. But that is only half the picture. Your pancreas will provide an extra 50% background insulin and leave it in your bloodstream as backup to ensure your cells have a constant supply of glucose or fuel.

If blood sugar levels drop because too much insulin is produced or too little blood sugar is available, then hypoglycemia or low blood sugar can result. What some people feel when they miss a meal and get "hangry" (hungry and angry). Low blood sugar is a serious condition which can cause the body to go into shock or lose consciousness. Hypoglycemic events can be triggered by exertion, stress, medication, liver issues, not eating enough food, and mineral depletion which I have clinically seen in oral contraceptive use (zinc and chromium depletion).

Impact on weight: Excess or irregular spikes in insulin levels can cause midtruncal weight gain and fat deposits along the waist, increasing the risk of heart disease and diabetes.

Estrogen Dominance

Hormone imbalances can occur at nearly any age. The normal pathway for estrogen production starts with compounds called acetates. Acetates convert to progesterone, which then forms estrogens. Progesterone also antagonizes (opposes) estrogen function to help maintain proper hormone balance. When estrogen takes this pathway, a woman is progesterone-dominant, and the hormones are in proper balance. The alternate pathway for estrogen production is from acetates to the adrenal hormone DHEA, then to estrogen. In this case, production of enough progesterone is bypassed, creating a condition known as estrogen dominance.

Symptoms of estrogen dominance include endometriosis, fibroids, ovarian cysts, weight gain, thyroid suppression, depression, lack of libido, insomnia, and an increase of facial hair from the excess testosterone formed from the unopposed estrogen. External hormone sources—such as birth control pills, estrogen replacement therapy, estrogens found in farm-raised meats, and xenoestrogens (dioxins, DDT, PCBs, etc.)—can aggravate these problems.

Impact on weight: Excess estrogen causes fatty deposits all over the body, resulting in general weight gain, which responds well to hormone management by improving liver function and eliminating excess estrogens.

Read the full article on our blog: flourishbodyandmind.com



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