

5 WAYS TO BOOST

# Metabolism



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*Don't look for someone who will solve all of  
your problems; look for someone who will  
face them with you*

*~Anonymous*

# WELCOME

Hi there!

My name is Salena Rothenberger, and I'm a Certified Functional Medicine Practitioner and Certified Health Coach through Functional Medicine University and Dr. Sears Wellness Institute.

In 2014 everything I thought I knew and practiced surrounding natural approaches to health was challenged when my oldest child was diagnosed with autoimmunity. We thought we were doing everything right from making our own baby foods to eating everything organic including grinding our own flour! His diagnosis sent me on a mission to uncover what it was that we had missed that led to him developing a life-changing autoimmune condition.

After searching for answers from coast to coast I came to realize that often a 'natural' approach is simply swapping out pharmaceuticals for an herb or eating "organic" however the rest of the pieces that contribute to wellness and vitality are overlooked and we still approach health with a 'take this for that' mentality.

My mission is to help busy moms and women find the answers they have been searching for without having to take time away from their family. This guide is a quick reference on ways you can support rebalancing your body. Please note that a one-size-fits-all approach is not my intent. These are basic steps to rebalancing the foundation. Everyone I work with has different types of issues that need specific suggestions to rebuilding their health. There are always some who need adjustments for foundational work. If you are finding yourself hitting a brick wall after doing things that are considered a general foundation please reach out to me as this is usually a sign one needs to address areas of health that are most often overlooked.

It's my passion to teach and inspire others to live healthfully and live the best possible life. Ready to dive in? I am!

In Health,

*Salena*

# SLOW METABOLISM & IT'S EFFECTS ON THE BODY

Metabolism is described as the overall chemical reactions inside a human body that changes nutrients from food into energy. Proper metabolism also helps the body function normally, such as with breathing, digestion of food, cell repair, etc.

All of the metabolic processes require energy to work properly. The minimum amount of this required energy is known as basal metabolic rate (BMR). Low BMR is frequently described as 'slow metabolism.'

## SIGNS OF SLOW METABOLISM

People can have a slow, fast, or normal metabolism and many factors can influence the speed of our metabolism. Slow metabolism means that our body cannot properly burn all the calories, which leads to the storage of calories in the form of fat.

The following signs are an indicator of a slow metabolism:

### **1. Unexplained Weight Gain**

If you suddenly gain weight even after taking precautions, such as eating a balanced diet and getting proper exercise, it might be connected to your metabolism. Unexplained sudden weight gain is the most common sign of slow

metabolism and is often connected with the lack of thyroid hormone, or hypothyroidism. Hypothyroidism effectively decreases the BMR of the body resulting in a reduction in the overall metabolic activity of the body.

## **2. Fatigue**

Fatigue (i.e., lack of energy or tiredness) is normally associated with a slow metabolism. When the human body is tired more frequently than normal, the body breaks down the energy-containing molecules at a slower rate, and an adequate amount of energy is not provided to the body. The slower the metabolic rate, the more fatigue one experiences.

## **3. Hair Loss, Brittle Nails, and Dry Skin**

Slow metabolism means that your cells are not burning calories as quickly as they should and more calories are being stored as fat. Due to slower metabolism, the body does not supply enough nutrient-dense blood to the rest of the organs which can result in hair loss, lack of luster in the skin, and uneven and brittle nails.

Due to slow metabolism, the human body also does not sweat as much, leaving the skin feeling dry and dehydrated. Nails are rough and brittle due to a lack of absorption of nutrients and hair is deprived of essential micronutrients vital for growth and regeneration.

## **3. Decreased Body Temperature**

A normal body temperature is essential for the body to carry out its biological and physical activities. Heat is provided to the body by metabolism, but if your body is cold more frequently than normal, it might be because of a slower metabolic rate. An underactive thyroid (or hypothyroidism) is also associated with slow metabolism as hypothyroidism causes a decrease in metabolic activity, hence low body temperature.

#### **4. Constant Craving of Carbs and Sugar**

Insulin is a hormone produced by the pancreas which regulates how the body uses and stores glucose and fat. It regulates the metabolism of carbohydrates, fats, and proteins in the body. When cells in our body don't respond well to insulin, insulin resistance occurs. Insulin resistance causes slow metabolism and stresses the pancreas into producing even MORE insulin. This phenomenon leads to a constant craving for carbohydrates and sugar-packed products, simply because the cells can't get the necessary glucose they need. Insulin resistance is a vicious cycle. The fact that cells can't get the necessary glucose causes the body to produce more insulin and it also leads to increased sugar and carbohydrate cravings.

## **WHY DOES METABOLISM SLOW DOWN?**

Maintaining a stable metabolism is extremely important in weight loss and for one's overall health. Some medical conditions and lifestyle habits prominently play a role in slowing down our metabolic rate, leading to many health problems. A few of them are as follows:

### **1. Hypothyroidism**

When the thyroid gland is not able to generate enough thyroid hormone, it is known as hypothyroidism. Thyroid hormone plays an important role in stimulating the body's metabolism, which controls our body temperature, pulse rate, and effective burning of calories.

There is not enough thyroid hormone to fuel up the metabolic pathways in hypothyroidism, hence a decrease in metabolic rate and lack of energy.

## **2. Low Protein Consumption**

Lower than normal consumption of proteins can cause slow metabolism. High protein intake plays a vital role in increasing the rate of calories burned by our body.

After digestion, there is an increase in the metabolic rate, known as the thermic effect of food (TEF). Studies show that the TEF of proteins is significantly higher than that of carbohydrates and fats. Eating a high protein diet increases the metabolism up to 20-30% compared to carbohydrates and fats, at 5-10% and 3%, respectively. As a result, lower the protein intake, the slower the metabolism.

## **3. Low-calorie Consumption**

Not eating enough calories can significantly decrease your metabolism rate. When there is a lower calorie intake, our body senses that and significantly lowers the metabolic rate to conserve the food resources in the body.

In most studies, calories burned during rest state are measured, termed resting metabolic rate (RMR). A study conducted on obese women showed that when a low-calorie diet is given to them for some time, their resting metabolic rate is significantly lowered. Although a decrease in calories is necessary for weight loss, cutting back too low affects your overall metabolism.

## **4. Sleep Deprivation**

Sleep plays a vital role in maintaining a healthy mind and healthy body. When you lack enough sleep, it can lead to many mental and physical conditions such as depression, stress, diabetes, and many other disorders.

A study conducted on healthy individuals showed a significantly slower metabolism after sleep restriction. A good night's sleep can improve the metabolic rate of the human body.

## 5. Lack of Activity

Lack of physical activity and leading a sedentary lifestyle are common causes of a slow metabolism. An adequate amount of physical activity helps burn calories, and when there is not enough activity, this process slows down, thereby decreasing the metabolic rate.

The absence of daily life activities such as walking, climbing up the stairs, or standing also slows down the metabolism. These activities are termed non-exercise activity thermogenesis (NEAT). Inactivity eventually leads to a slow metabolism.

# FIVE WAYS TO BOOST METABOLISM

Our metabolic rate depends on age, gender, genetics, muscle mass, and physical activity level. As we cannot control or change the genetic makeup of our metabolic system, we can surely boost our metabolism by using the following ways:

## 1. High Protein Food Intake

Foods rich in proteins can boost your metabolism. As compared to carbohydrates and fats, protein increases the metabolism by 15-30%.

High protein intake prevents the reduction in muscle loss by boosting up our metabolism. Muscle loss is commonly associated with dieting. When the body is provided with foods rich in proteins, the metabolic reactions pick up the



pace and produce a sufficient amount of energy for the body. It is important to ensure that you are able to digest protein properly so if you have tried adding more protein to your diet and did not see benefits it could be helpful for you to look deeper into your gut health and digestive system.

## **2. Increase in Physical Activity**

Leading a sedentary life affects our normal biological functions and leads to many health problems. This is because our metabolism is slowed down due to the lack of physical activity, and calories are not burned properly.

An increase in our metabolic rate can be observed by making physical activity a part of our daily life. High-intensity interval training (HIIT) can give outbursts of energy as it increases the metabolic rate and burns more fats. Strength training can also help boost your metabolic rate as well as build up your muscle strength. After strength training, the metabolic rate becomes considerably higher, and more calories are burned.

## **3. A Good Night's Sleep**

Disorders associated with sleep deprivation are prevailing rapidly in our society and can lead to many physical and mental problems. One of the major biological systems affected by lack of sleep is metabolism.

Sleep deprivation causes dysregulation in metabolism as the body is forced to obtain food at irregular intervals.

Sleep also plays an essential role in glucose metabolism. Studies show that partial sleep deprivation may increase the risk of type-II diabetes. Cortisol and growth hormones are involved in the regulation of glucose metabolism. After only one night of sleep deprivation, cortisol levels increase, and glucose dysregulation occurs. So, getting a good night's sleep may improve your metabolic rate significantly.

#### 4. Consumption of Green Tea and Caffeine

Green tea is considered to be one of the crucial factors in improving our metabolism. It naturally contains catechins and caffeine. Studies show that green tea helps in the burning of fats. In a study conducted on healthy men, green tea extract was given after some exercise which helped increase the metabolic rate and enhanced the oxidation of fats up to 17%.

Caffeine consumption can also increase metabolic rate by 3-4% and increase the energy expenditure by 8-11%, as shown in a study.

Drinking green tea can also be helpful in weight maintenance and weight loss as they boost up our metabolism considerably. **However, if you have a slow COMT gene** green tea and caffeine can further add to lower function of that gene. Estrogen dominance is also something to consider how your COMT gene is functioning as your COMT gene is also responsible for healthy estrogen levels.

#### 5. Consumption of Water

Water is considered an essential factor in maintaining and losing weight as it reduces your calorie intake and fills you up more.

Studies show that water consumption can also speed up your metabolic rate. After drinking 16 ounces of water, the metabolic rate increases by 30% in individuals.

#### **You Have the Power to Reverse Your Slow Metabolism**

Great news! You can take action to increase your slow metabolism with many of the action steps already mentioned in this report. Remember that these suggestions are lifestyle changes; they are NOT temporary fixes that get discarded when you reach your goal.

In addition to these lifestyle changes, get your thyroid levels tested. In many cases, individuals have been told their thyroid function is fine despite having many symptoms. For those with severe symptoms, optimizing thyroid function can be life changing. I am a strong advocate for thorough thyroid testing which includes:

- CBC, CMP, Lipid Panel & Iron Panel (Iron is essential for thyroid pathways)
- TSH, FT3, FT4, TPO, TGAB, Reverse T3

As with anything, the more action you take to change your lifestyle, the better results you will see. Nobody will hand you a magic wand to lose weight or increase your metabolism. Only you hold the power to make these changes. If you're intimidated by making multiple changes at once, focus on one new change until it becomes a strong habit.

No more excuses! If your biggest obstacle is finding time to exercise, try choosing an activity the whole family can enjoy. Use your own bodyweight to do pushups, crunches, squats, etc. Or wake up before your family to fit in some exercise before everyone's day begins. As the saying goes, "Where there's a will, there's a way."

# SCHEDULE A STRATEGY SESSION WITH ME

Need to connect with a practitioner who has been there? You can reach out at any time to book a complimentary strategy session with me at:

<https://thefunctionalperspective.com/schedule>

Much Love & Wellness,

*Sabena*