

ARE YOU ON THE BLOOD SUGAR roller coaster?

NORMAL
BLOOD SUGAR =
Health

HIGH BLOOD SUGAR =
Diabetes

CONGRATULATIONS!
YOU MAY HAVE RECEIVED
"THE GIFT OF HYPOGLYCEMIA"

LOW BLOOD SUGAR =
Hypoglycemia

**Yes - Gift.
Why?**

Because long before you get type 2 diabetes or heart disease, low blood sugar, also called **Hypoglycemia**, sends you insistent warnings, like a "canary in the coal mine," while you still have time to spare yourself. The gift messages take many forms: **anxiety, depression, physical and mental fatigue, brain fog and cravings** – all with the same greeting: **"Change while there's still time."** Assuming you listen and act, it could save you a lifetime of unnecessary suffering.

- Dorothy Mullen, Founder, The Suppers Programs

WHAT IS HYPOGLYCEMIA?

The low blood sugar of today is the diabetes of tomorrow. – Dr. Seale Harris



Complicated, misunderstood, and often misdiagnosed - the definition of **hypoglycemia** is as diverse and complex as the condition itself.



Hypoglycemia can be associated with **metabolic disorders, genetics, and medical conditions**, and has far-reaching clinical, economic, and social impacts.



Half of U.S. adults have diabetes or prediabetes - estimated to cost the U.S. economy **\$327 billion** in annual healthcare expenditures.



When hypoglycemia is **reactive**, the body is overloaded with **unhealthy substances**: sugar, processed food, alcohol, caffeine, and tobacco - often compounded by **stress** or **other medical conditions**.



Functional hypoglycemia is when the **pancreas responds** to excess starch/sugar intake by **pumping out too much insulin**, resulting in blood sugar plummeting below healthy levels.



Since all the cells of the body, especially the brain cells, use glucose for fuel, a **blood glucose level that is too low starves the cells**, causing both physical and emotional symptoms.

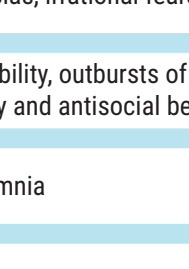
Functional hypoglycemia refers to decreases in blood sugar that cannot be explained by any known pathology or disease. It's a nice way of saying, "Your glucose regulating mechanisms aren't functioning normally, and we don't know why." Reactive hypoglycemia refers to hypoglycemia resulting from the body's abnormal response to rapid rises in blood glucose levels caused by diet or stress. The terms are now frequently interchangeable.

- Dr. Douglas M. Baird

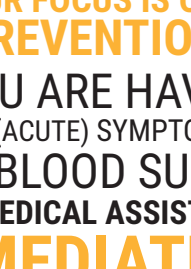


Hypoglycemia is associated with a wide variety of **diet-related disorders** (metabolic syndrome, type 2 diabetes, fatty liver disease, etc.) and **medical conditions** (critical illness, drug side effects, organ failure, gastric bypass surgery, etc.).

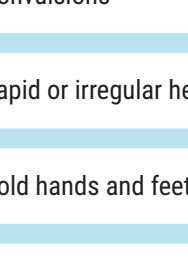
METABOLICAL FACTS



Carbohydrates (vegetables, fruits and grains, as well as table sugar) are broken down into simple sugars by the process of digestion.

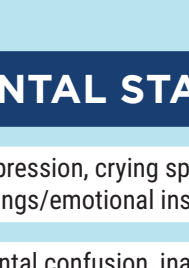


Sugars enter the metabolic system and **bloodstream**, and blood sugar rises, sometimes to excessive levels that the body is unable to process.



The **pancreas** secretes a hormone known as **insulin** into the blood in order to bring the glucose down to normal levels.

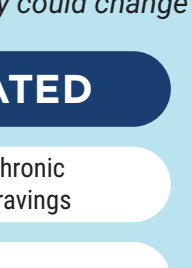
FOUR KEY CAUSES OF HYPOGLYCEMIA



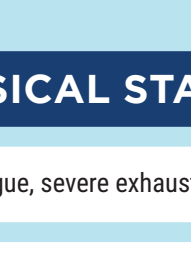
DIET



STRESS



LIFESTYLE



MEDICAL CONDITIONS

Hypoglycemia is one of the most confusing, complicated, misunderstood, and too often misdiagnosed or undiagnosed conditions of modern medical history.

Don't ignore symptoms, even though many do (including some healthcare professionals).

SYMPTOMS OF HYPOGLYCEMIA

Low blood sugar is now so widely experienced that it seems "normal" to many - low blood sugar is NOT normal. Perhaps you are aware of the symptoms, but just don't know what they mean or how to respond. *Taking these symptoms seriously could change your life.*

MENTAL STATES

- Depression, crying spells, mood swings/emotional instability
- Mental confusion, inability to concentrate, brain fog
- Fainting or blackouts, loss of consciousness
- Nervousness, restlessness
- Phobias, irrational fears
- Irritability, outbursts of temper, angry and antisocial behavior
- Insomnia
- Suicidal tendencies

DIET RELATED

- Food addictions, chronic overeating, food cravings
- Food sensitivities or allergies
- Sudden hunger - "Hangry"
- Anorexia or obesity

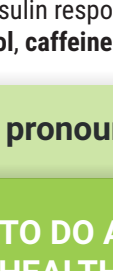
PHYSICAL STATES

- Fatigue, severe exhaustion
- Headaches, blurred vision
- Dizziness, shakiness or loss of balance.
- Numbness, muscle twitching, joint pain
- Convulsions
- Rapid or irregular heart beat
- Cold hands and feet
- Sweating

OUR FOCUS IS ON PREVENTION
IF YOU ARE HAVING SEVERE (ACUTE) SYMPTOMS OF LOW BLOOD SUGAR, SEEK MEDICAL ASSISTANCE IMMEDIATELY

THIS INFOGRAPHIC FOCUSES ON

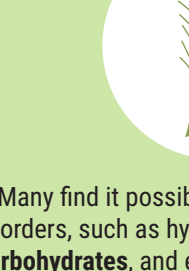
THE CHRONIC (day-to-day roller-coaster experience)



the ACUTE EXPERIENCE of Low Blood Sugar

FOOD / DIET and Hypoglycemia

CHANGE THE FOOD, CHANGE EVERYTHING



Diet is the leading factor in producing hypoglycemia as well as the **primary method for controlling it**.



Hypoglycemia is most often related to an **unhealthy food environment** - our diet, food system and culture is flooded with ultra-processed products featuring nutrient-poor carbohydrates and additives.



You are what you **metabolize**: everything that you eat and drink **affects** how you think, feel, and act.



Blood sugar disorders are a result of our **altered biochemistry**, which is often the result of our **altered food environment**.

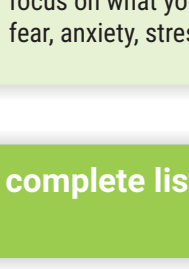


Food-mood connection: many experience daily blood sugar highs and lows, some experience milder less frequent symptoms, and some experience serious and debilitating mental health issues.

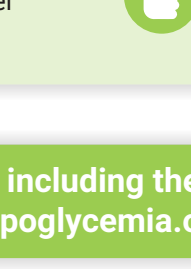


Dunk the Junk: eliminate processed foods, especially simple carbohydrates (pastas, breads, pastries) that have been baked into our culture and diets.

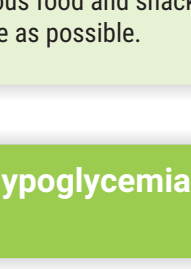
Hypoglycemia is mainly a condition related to a bad food environment - diet - because our diet, our food system, and our food culture is flooded with processed carbohydrates and sugar.



Diet plays a major role in **controlling and treating** hypoglycemia symptoms.

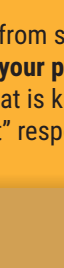


It is imperative to limit or remove **trigger foods** and substances that invite negative blood sugar and insulin responses, such as **sugar, flour, alcohol, caffeine and tobacco**.



Cut out ultra-processed foods with **preservatives, additives, food dyes, and fillers**.

If you can't spell it or pronounce it, why eat it?

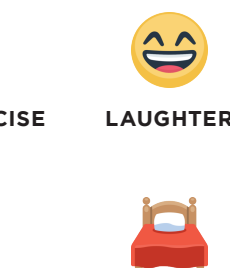


THIS CAN BE DIFFICULT TO DO ALONE - SEEK ASSISTANCE CHECK WITH YOUR HEALTHCARE PROFESSIONAL

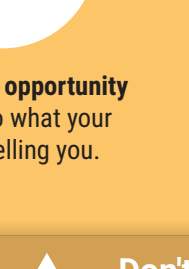
DIET IS THE CORNERSTONE SOLUTION FOR CONTROLLING REACTIVE/FUNCTIONAL HYPOGLYCEMIA



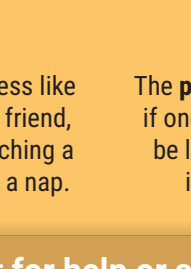
Many find it possible to reverse metabolic disorders, such as hypoglycemia, by **restricting carbohydrates**, and emphasizing **"safe-carbs"** (complex carbohydrates from high quality whole food sources, low in starch, high in fiber, and rich in nutrients) - in other words - **real food**.



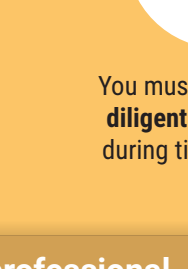
Small and more frequent meals may help stabilize blood sugar - but frequency of meals is less important than **quality**. Keep healthy snacks on hand: we are bombarded by unhealthy food choices - be prepared for situations where **healthy choices** may not be available (airplane travel, social situations, etc.).



LESS THAN A THIRD OF DOCTORS are provided a nutrition course in medical school and are lacking the resources to resolve diet-related conditions.



EAT REAL FOOD - fad diets don't work. Dunk the junk food. Emphasize whole, real, fresh foods. Avoid drinking your calories.



COOK - shopping, preparing and cooking your own food is the most powerful way to heal yourself.

EMPOWER YOURSELF



DON'T - Panic when you first hear about all the foods that you must eliminate from your diet; focus on foods that you **CAN** eat - there are plenty.



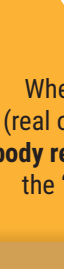
DO - Keep a diet/symptom diary. Establish a personal diet blueprint that reveals what you are eating and metabolizing. Self-monitoring is inexpensive and can reveal what isn't working.



DON'T - Skip breakfast. It can be the most important meal of the day for people suffering from hypoglycemia.



DO - Start eliminating the "biggies" - those foods, drinks and chemicals that cause the most problems: sugar, white flour, alcohol, caffeine and nicotine.



DON'T - Be obsessive about your diet. A CONSTANT focus on what you can and cannot eat can foster fear, anxiety, stress, and frustration.



DO - Replace offending foods immediately with good, wholesome, nutritious food and snacks as close to their natural state as possible.

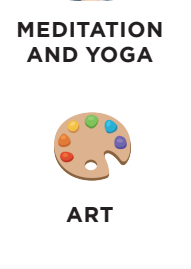
For a complete list of diet suggestions, including the do's and don'ts of hypoglycemia go to www.hypoglycemia.org/diet

STRESS and Hypoglycemia

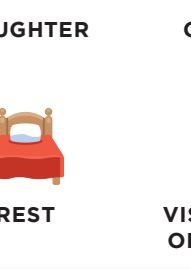
STRESS CAN ADVERSELY AFFECT YOUR BLOOD SUGAR HEALTH



When you suffer from stress (real or imagined), your **physical body reacts** with what is known as the "fight or flight" response.



The adrenal glands secrete **catecholamines, epinephrine and norepinephrine (adrenaline)**, which **raise the blood glucose levels** to prepare the body to fight or flee.



When the blood supply is flooded with sugar, the **pancreas** begins to over-secrete insulin, and the **blood glucose yo-yo begins**.

THE DROP IN BLOOD GLUCOSE IS REAL.
Diligence with diet during times of stress is vital!

I believe that once you understand how stress, like poor diet, can trigger hypoglycemia, you will understand the need to control both. The more overanxious you become about this condition, the more difficult it will be to get it under control.
- Dr. Loma Walker

STRESS-LOWERING TECHNIQUES

MINDFULNESS-BASED STRESS REDUCTION

MEDITATION AND YOGA

MILD EXERCISE

LAUGHTER

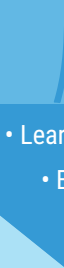
COOKING



MASSAGE



WALKING



JOURNALING



ART



MUSIC

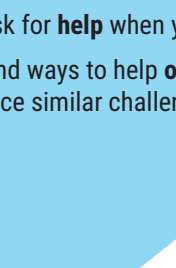


REST

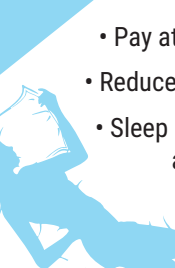


VISIT FAMILY OR FRIENDS

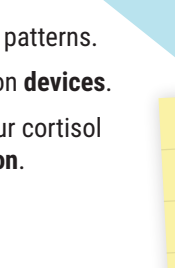
PAY ATTENTION TO THE RELATIONSHIP BETWEEN HYPOGLYCEMIA AND STRESS



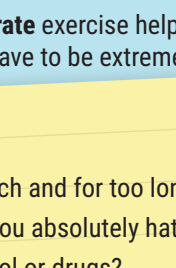
Stress is an **opportunity** to listen to what your body is telling you.



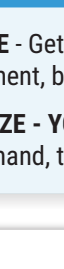
Small things can reduce stress like listening to music, calling a friend, having a healthy snack, watching a comedy, or taking a walk or a nap.



The **perfect diet** will not work if one's stress levels cannot be lowered or controlled... it just can't happen.



You must be even more **diligent** with your diet during times of stress.



Don't hesitate to reach out for help or seek a healthcare professional. You don't have to be on this healing journey alone.

LIFESTYLE and Hypoglycemia

CHECK YOURSELF BEFORE YOU WRECK YOURSELF!

COOK

- Learn to cook and **enjoy** your food with others.
- Enjoy your meals in a **relaxed** atmosphere.
- Keep a **food journal** to identify patterns and tailor your diet.

LIFESTYLE

REST

- Pay attention to your **sleep** patterns.
- Reduce the time you spend on **devices**.
- Sleep deprivation raises your cortisol and causes **depression**.

EXERCISE

- Enjoy exercise, get outside into **nature** and enjoy the fresh air and sunshine.
- Mild to **moderate** exercise helps - it doesn't have to be extreme.

Here's a Checklist

- Exercising too much and for too long?
- Working at a job you absolutely hate?
- Addicted to alcohol or drugs?
- Hooked on junk food?
- Giving to everyone else but yourself?

Re-evaluate your lifestyle situation.

- Start taking the first steps to **change what you can**.
- Can't do it alone?
- Reach out and seek help.

Your LIFE is not your life situation.
You are **NOT** a "hypoglycemic" - you are a person with low blood sugar. Focus on changing the conditions that are affecting your health.

EMPOWER YOURSELF

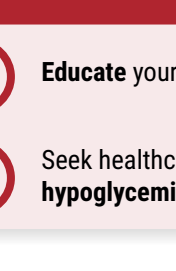
PREPARE - Get educated, always have some healthy food available, we live in a bad food environment, but you can change that. Plan for the best, prepare for the worst. Every day we are bombarded with bad food choices.

SOCIALIZE - YOU DON'T HAVE TO DO IT ALONE - REACH OUT - SEEK HELP, find support - friends, family, community. Ask, demand, that the important people in your life support your healthy diet and lifestyle.

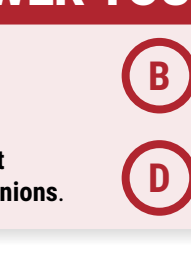
"Poor eating habits, the increased incidence of unhealthy ingredients, increased stress and poor sleeping habits has led to the increased incidence of this underappreciated blood sugar disorder: hypoglycemia."
- Dr. Keith Berkowitz, M.D, Medical Director for The Center For Balanced Health

MEDICAL CONDITIONS

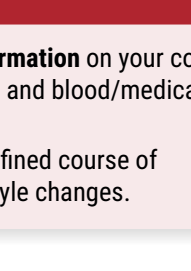
IDENTIFYING AND DIAGNOSING HYPOGLYCEMIA



There are many **medical conditions** that can precipitate or manifest as **low blood sugar**; this information emphasizes what is known as **reactive/functional** hypoglycemia.



Seek **medical attention** while being aware that some doctors may not see or understand low blood sugar symptoms, view them as serious concerns, or treat the symptoms versus the causes.



Be **prepared** to provide details about your condition, and if you aren't being taken seriously, seek advice from another healthcare professional.



Nothing takes the place of a medical diagnosis and treatment plan. However, **gathering, evaluating, and providing specifics about your diet and lifestyle is crucial.**



Personal data collection can be life-changing. Keeping a journal of your symptoms and diet is an absolute must. This information can be invaluable to your doctor or healthcare provider.

GLUCOSE TESTING



A glucose tolerance test (GTT) measures how well your body's cells are able to **absorb glucose** after you ingest a given amount of sugar.



Some **doctors** do not perform the GTT test on the very young or elderly, and some are reluctant to perform the test. Others may not be adequately trained to diagnose and treat hypoglycemia.

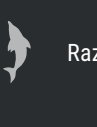


Understand the purpose, procedure, and instructions **before** you have the GTT administered. As an **informed** patient, you and your physician can determine whether or not the GTT test is for you.

Glucose tolerance tests are not indicated for all patients with hypoglycemia. People who have history of upper intestinal surgery or other medical conditions may not tolerate the GTT and the data may not be helpful. Doctors may wish to assess glucose and hormonal patterns in a variety of ways, depending on the patient's unique history. Some doctors will also want to look at **insulin levels** - the relationship between your blood sugar and insulin functions is an important one that is sometimes overlooked or misunderstood.



Learn more about testing for Hypoglycemia. Testing for Hypoglycemia is complex and challenging. Find out more at: www.hypoglycemia.org/test

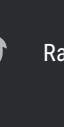


New Tech + Old School: continuous Glucose Monitoring technology has the **potential** to transform **diagnoses** of hypoglycemia - matched with good old fashioned **food journaling**.

EMPOWER YOURSELF



Educate yourself about blood sugar.



Collect and organize information on your condition, symptoms, dietary habits, and blood/medical tests.

Seek healthcare providers **knowledgeable about hypoglycemia** or be prepared to get **second opinions**.

Apply and commit to a defined course of treatment, including lifestyle changes.

RESOURCES

Visit www.hypoglycemia.org/info for more information and special offers



IF HYPOGLYCEMIA (LOW BLOOD SUGAR) IS AFFECTING YOU, DO NOT HESITATE TO SEEK PROFESSIONAL MEDICAL ADVICE AND/OR TREATMENT.

Hypoglycemia Support Foundation, Inc. is a tax-exempt 501(c)(