100% Natural Sweet Infused Sweetener™

LOW GLYCEMIC SWEETENING SYSTEM

FROM DR. ADW ALLEN: STATEMENTS, CLAIMS, & DOCUMENTS FOR SWEETENER SYSTEM VIDEO - SENT TO MIKE B. & NANCI ANNE June 2017

THE FOOD INDUSTRY HAS EVOLVED FASTER THAN OUR BODIES – Evolutionary Discordance is the issue – the result is obesity & diabetes

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The first Low Glycemic Sweetening System

GLYCEMIC INDEX

Source: Glycemic Research Institute®

The Glycemic Index is a quantification of the effect of a food or beverage to raise blood sugar and/or insulin levels after being consumed, which requires Human In Vivo Clinical Trials for documentation and legal FDA claims.

Per the trials, in the test period following the ingestion of a food or beverage in human subjects, the area exceeding basal values is calculated and compared with the area of a standard food (typically glucose).

For example, a Glycemic Index of 50, for instance, shows that the food or beverage tested produces a blood sugar level elevation which is half as large as

the elevation produced by glucose. Glucose has one of the highest Glycemic Indexes at 100. The Insulin Index can also be tested at the same time.

The higher the Glycemic Index - the worse the metabolic impact on the human body - including fat-storage in adipose tissue fat cells, higher risk of Type 2 Diabetes, weight gain, increased appetite, increased risk of certain diseases (such as lung cancer), and hypoglycemia (low blood sugar).

Glycemic balance is crucial in weight management. When blood sugar and insulin levels are elevated, contents of the fat cells are *blocked* from exiting fat cells, thereby preventing fat cells from being reduced in size (as in belly fat).

On a totally different level, high glycemic and the resulting insulinogenic state, both in the body and in the brain (Brain Glycemic Indexing®), actually cause fat storage.

In adipose fat cell tissue, high glycemic driven insulin is required to stimulate the insertion of the glucose transporter GLUT4 into the plasma membrane, thereby promoting the uptake of glucose into the adipocyte (fat cell). This drives carbs and sugars into fat cells.

SIF has one of the lowest recorded and documented Glycemic Indexes and Glycemic Load in humans (25-years of clinical research in adults, diabetics and children) in the entire spectrum of natural sweeteners.

LOW & NO-CALORIE SWEETENERS CAN STIMULATE BLOOD GLUCOSE & INSULIN & LPL FAT-STORAGE:

Even though they contain no calories, some sweeteners can cause insulin levels to rise by 20 percent.

ARTIFICIAL SWEETENERS CAN RELEASE FAT-STORING HORMONES & ABSORPTION OF GLUCOSE

"NEUROPHYSIOLOGIC FINDINGS PROVE THAT LOW GLYCEMIC CARBOHYDRATES & SUGARS reduce overeating and facilitate maintaining healthy weight in overweight and obese individuals" ***Harvard Medical School***

HIGHEST QUALIFICATIONS IN FORMULAS & MANUFACTURING

All Xtreme Healthy Lifestyles™ ingredients and formulas are on file with the FDA and allowed to be manufactured and sold per Food and Drug Administration (FDA) Rules & Regulations under cGMP, 21 CFR Part III. Produced and manufactured under Patent in a FDA-Compliant facility, NSF Certified Laboratory, and cGMP Good Manufacturing Practice Regulations for Dietary Supplements per FDA guidelines.

Certified GLUCOSE-FREE & GLUTEN-FREE NON-KETOGENIC

NATURAL BURNABLE CARBS

Contains a unique blend of slow-release burnable-carbs to help minimize blood sugar swings

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SIF promotes burning of fats by muscle during exercise

LOW GLYCEMIC INDEX & LOAD
Per Board Approved Human In Vivo Clinical Trials

SAFETY IN HUMANS: Tested in 250,000 humans over a 25-year period

REGULATORY STATUS:
Natural Fruit Sweetener, Sweet Fruit Concentrate, GRAS SINCE 1997
DIABETIC EXCHANGE

1 Level teaspoon = Free food exchange
4 Level teaspoons = 1 Fruit exchange

The first and only 100% natural, Low Glycemic sweetener that does not cause Brain Glycemic Indexing®

KID-FRIENDLY: Sweet Infused Fruits® have undergone clinical trials in children age 6-18 and adults (diabetic and non-diabetic).

DIET FRIENDLY: Meets all clinical trial criteria for legal claim of Diet Friendly.

DESCRIPTION: A light, free-flowing natural granular sweet fruit concentrate which can be used in place of High Glycemic, High-Cephalic sugars, sweeteners, and/or carbohydrates, sugar alcohols, and artificial sweeteners.

PURE INGREDIENTS

Sweet Infused Fruits™ do ***not*** contain any of the following ingredients:

- NO artificial sweeteners or chemicals
- NO sugar alcohols
- NO Stevia - NO Agave
- NO sucrose or dextrose (glucose)
- NO maltodextrins - NO glucose polymers
- NO High Glycemic ingredients
- NO High Fructose Corn Syrup
- NO GMO
- NO ingredients considered *unacceptable* or *unsafe* for children

ENVIRONMENTAL IMPACT: Sweet Infused Fruits® are fully biodegradable and not harmful to any living plant or animal, including humans, fish, mammals, and birds

CRUELTY-FREE: Sweet Infused Fruits® have never been involved in animal testing. The Sweet Infused Fruits® research team is against the abuse of animals in any format, and financially contributes to animal rights groups.

SWEET INFUSED FRUITS®

NATURAL SWEETENING SYSTEM
Board Approved Human In Vivo Clinical Trials

UTILIZATION & APPLICATIONS
Foods, Beverages, Desserts, Nutraceuticals

- **Completely Natural: All ingredients GRAS & approved by the FDA**
- **Board Approved Human In Vivo Clinical Trials**
- **Safe use in humans since 1983 – tested in 250,000 humans**
- **Appropriate in all foods and beverages (per FDA CFR 21 – DSHEA)**
- **Low Glycemic per Board Approved Clinical Trials**
- **Addition to coffee creamer products, protein drinks, and smoothies**
- **For use with coffee, tea, water, beverages**
- **Clinical Trials in Diabetics & non-Diabetics**
- **Does not trigger human Key Code® fat-storage mechanisms**
- **Does not trigger LPL Fat-Storing/Fat-Cell activity**
- **Tastes like regular sugar – no aftertaste**
- **No gastrointestinal issues – even at large doses (75 grams)**
- **Proven *Diet-Friendly* per CFR 21 FDA Guidelines & Claims**
- **Clinically Tested in children age 6-18 – appropriate for children's formulas**
- **Diabetic-Friendly (Type 2 Diabetic Trials)**
- **Safe L-arginine Isoform pathway for Blood-Brain-Barrier transport in humans**
- **Non-Cephalic applications in drug delivery and transport systems**
- **Non-adipose-tissue-fat-storing carbohydrates utilized in weight loss**
- **Low glycemic methodologies in Nutraceutical and Pharmaceutical weight loss formulas**
- **Does not over-elevate blood glucose or insulin levels in humans**
- **All-natural, organic fruit sweetener system for use in weight management**
- **Carbohydrates that do not trigger LPL human fat-storing mechanisms**
- **Natural sweetening system that does not instigate Lipoprotein Lipase fat-storage**
- **Methodologies for blocking fat-storage in the fat cells in humans**
- **Diet-Induced-Thermogenic (DIT) methodologies in weight management protocols**
- **Carbohydrate system for blunting adipose tissue fat-storage in foods, drinks, and weight management and blood glucose control**
- **Sports-Science Formulas: GH, Nitric Oxide, etc.**

THE PRIMARY DEFENCE AGAINST WEIGHT GAIN & OBESITY

by Dr. Ann de Wees Allen®
Chief of Biomedical Research
Glycemic Research Institute®

BRAIN SUGAR SWITCH
Brain Glycemic Indexing®

The primary defense against weight gain and obesity is the regulation of blood glucose and insulin levels in the body, which are triggered by ingestion certain foods and beverages.

Blood sugar levels, and hormones such as insulin and leptin, act specifically to regulate sugar intake into the brain, like a 'sugar switch'.

These control centers in the brain remotely control our metabolism in order to adjust optimally to our environment and diet.

The brain has the highest sugar consumption of all organs and also controls hunger and cravings for fattening foods.

Researchers have discovered that our brain actively takes sugar from the blood.

The transportation of sugar into the brain is regulated by so-called glia cells that react to hormones such as insulin or leptin; previously it was thought that this was only possible for neurons.

This mechanism of Brain Glycemic Indexing® is important to understand and to regulate in order to avoid obesity, Type 2 diabetes, and even more recently, Type 3 diabetes.

DIABETES IN THE BRAIN: Type 3 Diabetes

Recent clinical studies conducted by Dr. Suzanne de la Monte, M.D., a neuropathologist at Brown University shows the link between insulin resistance and brain cells, which creates a condition similar to *diabetes in the brain*.

This condition is now referred to as Type 3 diabetes, and is directly correlated with blood glucose and insulin levels elevated by diet.

Aside from Type 3 diabetes, impaired insulin signaling has an important role in the pathogenesis of Alzheimer's disease (AD) and the assertion that AD represents "Type 3 diabetes".

The *Archives of Neurology* published breakthrough science related to the importance of the Glycemic Index and Alzheimer's Disease:

- **Healthy people who ate high-fat, high-glycemic-index diets for one month saw increases in spinal fluid levels of beta-amyloid, a fibrous protein that clogs the brains of people who have Alzheimer's disease.**

- **Eating a low-fat, low-glycemic-index diet, on the other hand, lowered levels of beta-amyloid in healthy adults and improved other markers of inflammation and damage in both groups.**

In Type 2 diabetics, excess abdominal fat is typical, due to continual flux in blood glucose and insulin levels. High body fat levels are tied to Type 2 diabetes, Type 3 diabetes, and Alzheimer's Disease (the accumulation of excess abdominal fat is strongly correlated with Alzheimer's).

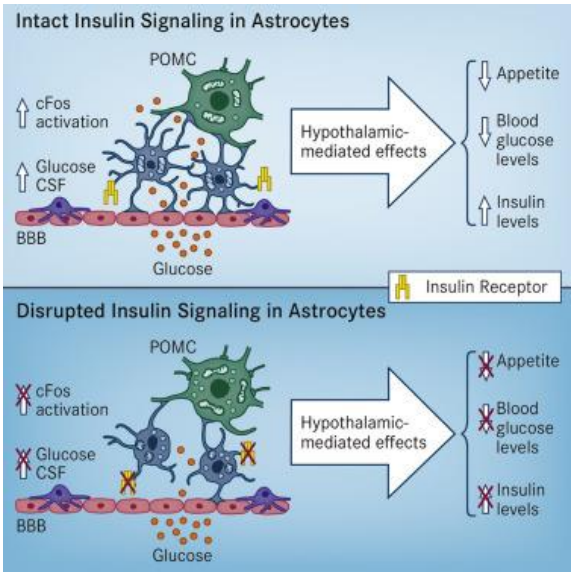
The number one symptom of insulin resistance is excess abdominal fat and abdominal obesity (central obesity or visceral adiposity).

Visceral adipose fat is a type of fat that surrounds the organs of the body, causing inflammation in the entire body. The more insulin resistant the body becomes, the more fat accumulates in the abdomen area.

This is the so called, *dangerous fat*, as it increases risk of heart disease, Alzheimers, osteoporosis, and some forms of cancer.

BLOOD GLUCOSE, INSULIN & THE BRAIN

The regulation of blood glucose supply to and within the brain is controlled via glucose transporter (GLUT)-1. Although GLUT-1 is highly expressed along the blood-brain barrier in both astrocytes and endothelial cells, it is much more abundant in astrocytes.



Similar to neurons, astrocytes respond directly to nutrient and endocrine signals and, in turn, contribute to adjusting CNS control of systemic metabolism according to *nutrient availability*.

Nutrient availability if the key, as the brain must have a continual supply of Burnable Carbs, which are brain-friendly utilizable fuel, or it malfunctions, and the body follows suit.

Even mild versions of these metabolic and neural cascades cause reduced sports performance in athletes, as well as lack of cognitive function.

Neural Nutrition: The New Future

Neural Nutrition, also known as Brain Glycemic Indexing®, is a rapidly expanding science, encompassing the field of neural reactions from food and beverages.

The utilization of Burnable Carbs in sports drinks is essential for performance, as it circumvents Ketosis, which reduces the capacity to absorb carbohydrates during an athletic competition or exercise.

Keto-Adaptation is used by some athletes and trainers, which instigates a physiological shift to a state of ketosis in which ketone esters are believed to provoke better performance.

But, research has demonstrated that Keto-Adaptation takes up to a month to kick-in, and ketosis would be required to last for a long period of time, perhaps months - before it would respond to the introduction of ketone esters and switch or moderate glucose and fat use to sourcing ketones for energy.

Additionally, alternative fuel substrates, such as ketones and lactate, can only supply up to 50% of fuel, and take various lengths of time to adapt.

Ketosis in *non-athletes* can also be considered as drastic and uncalled for due to the documented adverse reaction evidenced.

DOCUMENTED ADVERSE REACTIONS OF KETOSIS
POTENTIAL HARM TO BODY SYSTEMS

- **Neurological (impaired cognitive function and mood)**
- **Digestive (kidney stones, renal tubular acidosis, nutrient deficiency, disordered mineral metabolism)**
- **Musculoskeletal (muscle cramps and weakness, bone fractures, osteoporosis)**
- **Immunological (low platelet count, inflammation, bruising, Pneumonia, sepsis, infection, bacteria overgrowth)**
- **Dermatological (Thinning hair/hair loss)**
- **Cardiovascular (cardiomyopathy, heart arrhythmia, myocardial infarction, shift toward atherogenic lipid profiles)**
- **All Systems (death)**

Noted exceptions are Nutritional Ketosis utilized in epilepsy seizure *reduction* in children, with a highly monitored protocol.

Ketosis Clinical References: Stewart, et al., 2001, Kang, et al., 2004, Kang, et al., 2005, Bank, et al., 2008, Suo, et al., 2013

BURNABLE FUEL ASSURES SURVIVAL & BRAIN FUNCTION

Without stored glycogen, life ceases to exist. According to the Department of Biochemistry and Biophysics, University of Pennsylvania College of Medicine, "You can survive for only 1 day on stored glycogen." Burnable fuel is required for all life functions.

Artificial sweeteners and other sweeteners, such as Stevia and Monk Fruit, are not brain-friendly Burnable Carbs.

Even artificial sweeteners, which do not contain calories or carbs, can cause insulin levels to rise by 20 percent, thus triggering negative Brain Glycemic Indexing®.

According to leading *Brain Sugar Switch* clinical researchers:

"The idea is to find ways and substances that modulate pathways on multiple cell types to curb sugar addiction and ultimately provide better treatment to the growing number of obese and diabetic individuals"

Insulin crosses the blood-brain barrier via a saturable, receptor-mediated transport system. In Type 2 diabetes and diet-driven obesity, the brain's insulin transport and signaling are compromised by persistent high blood sugar and insulin levels.

Replacing High Glycemic sweeteners with Low Glycemic sweeteners is a major tool is controlling blood sugar and insulin levels, and protecting the brain.

Sweeteners making the claim of "Low Glycemic" should contain Brain-Friendly Burnable Fuels. Any sweetener making the claim of "Low Glycemic" should have, per FDA and FTC law, and by ethical mandate, undergone Board Approved Human In Vivo Clinical Trials in human subjects.

SIF is a Non-Ketogenic, Brain-Friendly Burnable Fuel (natural carbohydrate) that has undergone multiple *Board Approved Human In Vivo Clinical Trials in human subjects*. SIF does not create or cause negative Brain Glycemic Indexing®, and is the only sweetener that can make these claims.