# Biogenetix

Nutritional Supplements

Biogenetix

# Disclaimer

* *Biogenetix products are not intended to diagnose, treat, reverse, cure, or prevent any disease. They are intended to be used as dietary supplements for the sole purpose of supporting patients. The following statements have not been evaluated by the FDA.*

* *The information provided in this presentation is for your consideration only as a practicing health care provider. Ultimately you are responsible for exercising professional judgment in the care of your own patients.*

# What brings you here today?

1. Looking for a solution to a specific problem?
2. How to application – from webinar to office visit.
3. State of the art FM tools and strategies.

**All you Biogenetix veterans,**
**WRITE IT DOWN ☺**

# YOUR GOLDEN YEARS

* The NEXT 10 years are the golden years in FM for you and your practice IF:
  - ✓ Systematize your approach to patient care.
    - ✓ (listen to my podcast - Nutrition Hero on iTunes)
  - ✓ Create easy to follow programs.
  - ✓ Work with superior products.
  - ✓ Technology that sets you apart from your competitors.

# Patient Centered, NOT disease centered.

**WHAT THEY ARE DIAGNOSED WITH:**

* Chronic Fatigue Syndrome
* Malnourishment
* Diabetes
* IBS/IBD
* Thyroid disease
* Hashimoto
* Diabetes Type 1 and 2
* Low Blood Pressure

**WHO WE ARE REALLY LOOKING FOR: People c/**

* Oxidative stress
* Sluggish detoxification
* Diffuse inflammation
* Organic dysfunction
* Hormone imbalances
* Hormone resistance
* Toxicities
* Orthostatic Hypotension
* etc.

# Hypoglycemia - is it REAL?

* Perceived vs documented…
* Clinical vs relative…
* WHO DO YOU KNOW?

# Hypoglycemia - is it REAL?

* Palpitation
* Tremor
* Sweating
* Dizziness
* Blurred Vision

* Most Accurately characterized by INCREASED SYMPATHETIC TONE

# For example…

Diabetes. 1981 Jun;30(6):465-70.

**Comparison of oral glucose tolerance tests and mixed meals in patients with apparent idiopathic postabsorptive hypoglycemia: absence of hypoglycemia after meals.**

Charles MA, Hofeldt F, Shackelford A, Waldeck N, Dodson LE Jr, Bunker D, Coggins JT, Eichner H.

Results showed that during an OGTT, blood glucose correlated with hypoglycemic symptoms in some subjects, but symptoms also occurred during a mixed meal, though glucose levels weren't significantly decreased.

# So is it REAL?

Br J Nutr. 2006 Jun;95(6):1127-33.
**Ambulatory blood glucose measurement, dietary composition and physical activity levels in otherwise healthy women reporting symptoms that they attribute to hypoglycaemia.**
Simpson EJ1, Holdsworth M, Macdonald IA.

Subjects with hypoglycemic symptoms failed to reach "chemically low" levels of serum glucose, repeatedly.

# Medicine weighs in…

JAMA. 1980 Mar 21;243(11):1151-5.
**Reactive hypoglycemia.**
Johnson DD, Dorr KE, Swenson WM, Service FJ.

"The five-hour OGTT seems unreliable for the diagnosis of reactive hypoglycemia, and most patients with symptoms suggestive of hypoglycemia may have emotional disturbances."

# The Answer is…

* Yes. It's real to the person experiencing it.
  * Distinction needs to be made!
  * Psychological? Doesn't matter.

# What's in a name?

* If we're going to name it, then we're going to have to test it…
  * Fasting glucose
  * A1c
  * 1,5 anhydroglucitol (Glycomark)
  * C-Peptide
  * Glucagon
  * Fasting Insulin

  * OGTT - medical standard.

# The Patterns

* Insulin Hypersensitivity
  * Low A1c (<5.2)
  * Low or NORMAL C-peptide (<1-3)
  * Low or NORMAL fasting insulin (ID Type 1 or 2 DM) (<2-6)
  * Low or NORMAL fasting glucose (<80)

# The Patterns

* Hyperinsulinism c/ concurrent Glucagon impairment (hypo)
  * Low or NORMAL A1c (<5.2)
  * NORMAL or HIGH C-peptide (<1-3)
  * NORMAL or HIGH fasting insulin (ID Type 1 or 2 DM) (<2-6)
  * Low or NORMAL fasting glucose (<80)
  * Glycomark below 15 (instability)
  * Glucagon below Pathological Reference Range

# The Patterns

* Gastrointestinal
  * Increased GLP-1(Incretin that stimulates glucose dependent insulin release). Also suppresses glucagon).
  * Increased Gastric emptying
    * poor absorption

# The Patterns

* Gastrointestinal cont'd
  * GLP-1
    * participates in regulation of the HPA axis
    * Increases Islet cell mass via neogenesis
    * Patients can make antibodies to GLP-1
  * Patients with TSH, CRH/ACTH, LH…

# The Patterns

* Counterregulatory Imbalance
  * Low Cortisol
  * Low Epinephrine
  * Hypothyroidism
  * Increased IGF - 1 (enhanced insulin activity)

# Put it to work…

* Susan
  * 23 y.o. female
  * 15 lbs. overweight
  * Hashimoto's
  * Orthostatic Hypotension
  * Chronic IBS-like issues.
    * She uses yogurt for the "good bacteria"

# Put it to work…

* Ron
  * Type 1.5 ID Diabetes
    * Fasting Insulin 37
    * C Peptide .33
    * A1c 7.4
    * Glucose 101 fasting
    * Glycomark .5

# Put it to work…

* David
  * 46 yo old male
  * 5'10", 247 lbs.
  * Doesn't feel well for most of the day
  * Energy 5/10 in the AM, sweats profusely for 15 minutes, then 1-2/10 the rest of the day
  * 10-12 cups of coffee per day
  * Truck driver
  * no medical diagnosis

# Put it to work…

* David (cont'd)
  * What type of testing do we use?
  * What type of questioning do we follow?
  * silver bullet vs systematic documentation

# The Follow Through

* dietary scheduling
* associated triggers addressed
* Glucose stability
  * Broad spectrum support that addresses the complete array.

# GlucoGen


1. L-Carnitine
2. Acetyl-L-Carnitine
3. Licorice Root Extract
4. Nicontinamide Riboside

# Review

* Always look.
* Always question.
* Remember the patient story.
* Aim for stability, not glucose increase.