

# Insulin Resistance/Dysregulation Lab Values

<b>Triglycerides</b>	<100 Levels greater than 60% of total cholesterol should be addressed especially if HDL are 40 or below.	optimal
<b><u>Fasting Insulin</u></b>	10 IU /ml or below Over 10 IU/ml	optimal high
<b>HBGA1C or Glycated Hemoglobin</b>	5.4 or less percent 5.6 - 5.8 5.9 - 6.5 6.5 or higher	optimal acceptable high at risk of diabetic complications
<b>Glucose</b>	70 - 85 mg/dl 85 - 100 mg /dl 100 plus	optimal high indicative of diabetes
<b>Anion Gap</b>	(Sodium +Potassium) – (CO2 +Cloride) = Anion Gap; if that number is 14 or over and the CO2 is low (under 24) consider a thiamine deficiency, and supplement with a phosphoralated form like <b>Bio-3B-G</b> . Low B1 is often the cause of elevated glucose.	
<b>Insulin Resistance Calculation</b>	(Fasting Insulin X Fasting Glucose) Divide that number by 405. If that calculation is greater than 1.8 you have insulin resistance.	
<b>Leptin</b>	4 - 6 ng/dl Up to 9 ng /dl 10 plus ng/dl	optimal acceptable high

Any of the above values above OPTIMAL or ACCEPTABLE should be addressed. Patients using glucometers should continue taking their regular glucose levels when taking nutrients to enhance blood sugar regulation

**GlucoBalance®** Use 2-3 capsules, three times per day, a formula developed by Drs. Jonathon Wright and Allan Gaby as a source of foundational nutrients. Use the 3 capsules for heavier patients or lab numbers in the high range discussed above. Reduce to 2 capsules, three times per in 30 days.

**Optimal EFAs®** Use 2 capsules, three times per day, a mixture of omega 3s and organic GLA with some flax seed oil to reduce inflammation via N-F-kappa B pathways.

**Bio-D-Mulsion Forte®** 2 drops yields 4,000 IU, some studies show vitamin D works as good or better than some medication to reduce blood sugar.

**Lipoic Acid** 100 mg, three times per day, to prevent neuropathy and provide antioxidants to protect tissue.

**Niacinamide (Bio-B3 Plus 250™)** To help burn sugars more efficiently 1-2 tablets, three times a day.

**Bio-3B-G®** Each low dose tablet is 1.5 mg. Take 2 every waking hour for 10 days and monitor blood sugar, then 3 tablets, three times a day for 60 days.

**Mg-Zyme™** (magnesium) Start with 3 tablets at bedtime and increase to bowel tolerance. The goal is a loose but formed stool. Magnesium will draw water to the bowel and have a laxative effect if too much is used.

**REDUCE CARBOHYDRATES TO NO MORE THAN 60 GRAMS PER DAY**

Monitor blood levels on a regular basis and adjust nutrient dosage levels accordingly. The closer patients follow dietary and lifestyle modifications, the lower dose nutrients will be needed.