Sarah's Food Rules and Other Important Insulin Resistance Thoughts

1. If it says fat free or low fat, don't buy it! Low or controlled carbs is the preference and healthy fats include butter, coconut oil, animal fats, avocado, cheese, olives and olive oil, nuts, etc.

2. "Eat real food. Real food doesn't come in a box." Consistent with a Paleo approach.

3. "Don't eat what you don't like." Use fats to make real food taste great!

4. "Eat when you're hungry, stop when you're full." If you're hungry on a low carb, high fat nutritional program, you are *not* doing it correctly! Fat and protein satiate you and cause less of a rise in insulin levels. Therefore, you shouldn't be hungry!

5. "No GPS — Grains, Potatoes, Sugar" (Hallberg). "Sugar is toxic." (Lustig). **Most Important: Avoid High Fructose Corn Syrup, Sugar, and Highly Refined Carbohydrates!** Alcohol and beer, please see Gary Taubes, *Why We Get Fat* Chapter 13. Please see Dr. Eric Westman, "The No Sugar, No Starch Diet" in *WWGF* at the end.

6. Insulin Resistance = CARBOHYDRATE INTOLERANCE! More than half the US population! (Inuit, Masai, Pima) How about you? Easy to find out. IR, the NMR, the LP-IR Score!

7. Don't try to "outsmart" the kidney. Salt restrictions are rarely indicated (Fung, Hall).

8. Cholesterol is back on the menu. Eggs, shrimp, etc. After 40 years, the USDA finally issued a quiet retraction (Feb. 2015), and then flipped again. CRAZY! (Nissen) USDA Guidelines, an Evidence Free Zone. Ouch.

9. High levels of triglycerides in the blood are fueled by carbohydrates. The ideal triglyceride is ~75. Get tested if >150. FBS, sugar is the last to rise. Test if >95 and get a glucometer! TG/HDL (> 3 male; >2.5 female), the poor man's IR score. Helpful. (Reaven). The Specter is everywhere! Catch IR early and reverse it! Get your NMR. *Go low carb and drop your insulin levels!* Dr. Sarah Hallberg totally nails this one. Please listen carefully to her!!!

10. The low fat recommendations in the latest USDA guidelines remain problematic to a growing number of concerned physicians. *(The Big Fat Surprise,* Nina Teicholz). What a great book! Remember Dr. Hallberg's closing statement about low fat, "A massive experiment gone terribly wrong!" Those who have contributed to this handout agree with Sarah and Nina. *Ignore the Guidelines!* They are *"Exactly Backwards* "(Lustig). What is your LDL-P and LP/IR score? If you are *Insulin Resistant,* we can fix that! Be smart, get your NMR!

GLOSSARY

1. Insulin Resistance (IR): An all too common human problem characterized by elevated levels of the hormone Insulin. As humans become IR certain cells (muscle, liver and fat) become resistant to insulin's signal to allow glucose to enter the cell. Blood sugar and insulin levels rise (sometimes very high) as our pancreas secretes more and more insulin to compensate for problems with the cell's glucose receptor... Ironically the elevated insulin levels create other problems (Wt. gain, heart attacks, stroke with hypertension, gout, type 2 diabetes, kidney disease, certain cancers and even Alzheimer's/dementia etc.) as high levels of insulin ruin our bodies beautiful metabolic machinery. (football model)

2. Metabolic Syndrome; (aka Syndrome X or the Insulin Resistance Syndrome): A cluster of signs and symptoms indicative of Insulin Resistance and its elevated insulin levels including 1. Abdominal weight gain, 2. Elevated Triglycerides, 3. low HDL levels, 4. elevated BP, and 5. elevated sugar levels. Any 3 of the 5 confirms the diagnosis of Metabolic syndrome. Heart Attack risk is doubled and DM2 risk increases by a factor of 5! Also, very importantly, particle number rises with the worsening of the metabolic syndrome.

3. Particle number (LDL-P): The number of lipoprotein transportation vehicles carrying both cholesterol and triglycerides around the body to perform their critical functions... Fats float and the particles that carry the fats (the lipoproteins) can dissolve in the plasma. These particles set the stage for a heart attack when they enter the arterial wall, are oxidized, cause plaque, that when it ruptures causes the heart attack. The higher the particle number (LDL-P) the greater the heart attack risk! "It's not the Passengers It's the Cars. (Picture and model)

4. LP-IR score; (The insulin resistance score): A combination of 6 different Lipoprotein variables used to calculate IR. The best test for IR outside of a research setting! I want every Police officer to know their IR score. It all starts here!! (Picture of the 2 rocks)

5. Type 1 diabetes (formerly called juvenile diabetes): This is the diabetes of NO insulin. These patients must have insulin to survive. Banting and Best 1921 (approximately 5% of diabetics)

6. Type 2 diabetes (Formerly was called adult onset but now it is seen in our kids, thus the name change): This is the diabetes of Insulin Resistance (too much insulin). The increased prevalence of DM 2 is so alarming! Now 1 out of every 11 Americans. It has doubled in the last 10 years alone. Perhaps even worse the rate of pre-diabetes is now 37% of the population and of course all these people are IR. Insulin Resistance is everywhere and Police are particularly at risk as we will show you.