



INSULIN RESISTANCE AND THE FIRST RESPONDER

(Police Version)

SpecialtyHealth Train the Trainer Teaching Documents Prepared for the Police Officers Memorial Destination Zero Award on behalf of the Lafayette and West Lafayette Indiana Police Department Wellness Programs.

Chief Patirck Flannely Lafayette Indiana PD (ret) &
E. James Greenwald MD, SpecialtyHealth

INSULIN RESISTANCE and LAW ENFORCEMENT

In 2021 Dr Kevin Gilmartin asked if I would endorse his revised edition of Emotional Survival for Law Enforcement. What an honor! This is what I said.

“The first time I heard Dr Kevin Gilmartin compare the overweight police officer to the bear getting ready to hibernate in the fall, I said “Wow, That’s it!” Of all of Dr Gilmartin’s great stories, I believe that the one about the bear is the most important to law enforcement today. So nice to see the hungry, insulin-resistant bear featured in the new version of Emotional Survival for Law Enforcement. Keep your cortisol and insulin levels low Ladies and Gentlemen. Don’t become Kevin’s bear!”

Dr Gilmartin understands Insulin Resistance Ladies and Gentlemen, and what Stanford’s Dr Gerald Reaven (The Father of Insulin Resistance) told the American Diabetic Association 35 years ago in his famous Banting Award lecture (The Role of Insulin Resistance in Human Disease). Dr Reaven told the ADA that Type 2 Diabetes, Hypertension and Coronary Artery Disease could be “UNIFIED” under one common metabolic disorder called Insulin Resistance. Amazing! Later Dr Reaven told us that as we work to reverse Insulin Resistance, we are addressing 3 Diseases of Civilization at the same time. The results can be “phenomenal” he said, as you can see in the Dr Reaven video included in the following document. THE IMPLICATIONS FOR THE POLICE ARE ENORMOUS! Over the last 35 years weight gain (obesity), chronic kidney disease, certain cancers, Alzheimer’s disease (T3D or Insulin Resistance of the brain) and lately depression have been added to the Diseases of Civilization related to Insulin Resistance. The list continues to grow. Dr John Violanti has been delivering the Insulin Resistance/ Metabolic Syndrome message to the Police for years. We include John’s latest very timely work, Occupation Under Siege. Are you Insulin Resistant? we believe is the single most important metabolic question for Law Enforcement today.

Recently, Ben Bikman PhD has continued Dr Reaven’s research on Insulin Resistance at BYU. Ben’s new book Why we get Sick (Thoroughly referenced and included) tells us why being

Insulin Sensitive is so metabolically advantageous! Along with many others Ben tells us how to eat to keep our insulin levels low. (Yellow Highlighted) Amy Berger CNS and Dr Eric Westman from Duke do much the same, effectively inserting “Cop Talk” in our very popular Low Carb for Law Enforcement (Included). Easily a dozen National experts including Amy could visit the Police Memorial or jump on a ZOOM call and answer questions. All appreciate the fundamental importance of Insulin Resistance to Law Enforcement.

If Insulin Resistance is an unfamiliar topic to the Police Memorial reviewers Dr Sarah Hallberg’s Ted talk, Reversing Type 2 Diabetes Starts with IGNORING the Guidelines might be the ideal place to start. (~ 9 million views so far!) This talk and Sarah’s subsequent VirtaHealth research have changed national guidelines for both the ADA the AHA. Police examples of T2D reversal are available and happy to share their story. Chief Patrick Flannelly is the backyard neighbor of the Hallberg family in Lafayette Indiana. Our first national Police Train the Trainer program emphasizing Insulin Resistance began in Lafayette under Chief Flannelly’s leadership. It was a pleasure to gather this material together for the Police Memorial Ladies and Gentlemen. Any errors are solely my responsibility.

Thanks so much,

E James Greenwald MD

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Insulin Resistance: The Silent and Deadly Spector Haunting Police Officers Everywhere (Why Cops Die Young)

The SpecialtyHealth Wellness and Prevention program for the Police began over 20 years ago. During this time, we have identified the common, preventable, and reversible health condition of insulin resistance as a primary driver of premature death in Police Officers. Insulin resistance is a state of chronically elevated insulin levels. Often prolonged stress and a poor diet contribute, leading to many of today's common ailments such as obesity, hypertension, heart disease, and diabetes. This conclusion has been supported by years of scientific research and clinical applications in medicine and psychiatry.

The catalyst happened in 2001, there had been 3 Heart Attacks in one of the small (30 officer) Nevada commands. We were asked why these events had occurred? All Nevada first responders get required annual physicals, why were these tragedies happening? There was so much confusion initially The low-fat message was the accepted dietary advice of the day. (The low-fat high-carbohydrate Food pyramid was being taught in my daughter's school). Was low-fat the correct nutritional message for all of us? And to lose weight, the accepted advice was to Eat less and Exercise more (weight loss was a simple math equation). The problem was that this recommendation rarely worked. Also, Big Food and Big Pharma were routinely "Gaslighting" the American public! Coco Puffs for example, were advertised as "Heart Healthy" and proudly displayed the AHA logo. The sugar sweetened beverage industry was telling us that "A Calorie is a Calorie."¹ and Public Health officials were seriously recommending a Polypill for everybody. A pill containing statins to lower cholesterol, antihypertensive medications etc. Beyond that, when we reviewed large numbers of the annual Police physicals (which we did) significant elevations of the *triglycerides* (a fat in the blood) were common, in male Police officers especially! Why were the triglycerides elevated and not the LDL cholesterol (the so called "Bad Cholesterol")? What Was Going On? Why was Dr Kevin Gilmartin seeing Police officers incrementally gain weight over the course of their career, often becoming Pre-Diabetic and then Type 2 Diabetic (T2D) as they approached retirement? Why was Dr John Violanti clearly documenting Cops Dying Young? There was lots of noise and many different opinions in the early 2000s . it was difficult to understand where or how we were going wrong! Fortunately, Gary Taubes, an investigative science journalist, authored an article in the NYT in 2002, "*What If It has All been a Big Fat Lie*". In that classic article Gary included two paragraphs that we have copied below. Gary wrote about Stanford's Dr Gerald Reaven, the triglycerides and why a low-fat approach makes *no sense* for Insulin Resistant individuals! What if it has All Been a Big Fat Lie had a profound effect on the SpecialtyHealth Police program! The fog began to clear as we got to know both Gary Taubes and Dr Reaven. We began to appreciate the fundamental importance of Insulin Resistance in Police populations and to describe Insulin Resistance as the Silent and Deadly SPECTER Haunting Police Officers Everywhere.

¹ Ben Bikman pg. 163 – If you are in ketosis you burn up to 300 extra calories per day. What a calorie is in you depends on what you are metabolically.

In 1988 Stanford's Dr Gerald Reaven (The Father of Insulin Resistance) delivered the Banting Award Lecture to the American Diabetes Association. In that address, after ~ 30 years of research, Dr Reaven discussed the possibility that Insulin Resistance and its Compensatory Hyperinsulinemia (high levels of insulin in the blood) were responsible for the etiology and the clinical course of THREE major related human diseases!! Type 2 Diabetes, Hypertension and Coronary Artery Disease. The ADA audience was astounded! Dr Reaven concluded; "Although this concept may seem *OUTLANDISH* at first blush, this notion is consistent with available experimental data." (Dr Reaven had reviewed his findings from Stanford) Incredibly, in that historic moment, Dr Reaven had "Unified" three seemingly very different major diseases! Put another way Dr Reaven was saying that all 3 diseases were related because all three were caused and driven by the presence of increased amounts of the hormone insulin! Intellectually the concept was almost too big to grasp. Over the next 10 years Dr Reaven continued his groundbreaking research, gradually convincing colleagues not only that he was correct, but also that the list of Insulin Resistant related diseases needed to be expanded! In a remarkable medical career Dr Reaven published more than 800 scientific papers (without one retraction) and various texts addressing Insulin Resistance, including Syndrome X for a more general audience. Today the terms Syndrome X, Metabolic Syndrome and Insulin Resistance Syndrome are used interchangeably but all refer to Dr Reaven's original work. Dr Reaven's 5 classic signs of Insulin Resistance included elevated Triglycerides, low HDL levels, Increasing Abdominal girth, Hypertension, and elevated Fasting Glucose levels. All five abnormalities are commonly seen in Police populations, every abnormal biomarker is important. Elevated Triglycerides (the fat in the blood) by routine testing, could be the most important early indicator that an Officer's metabolic health is deteriorating, and that Insulin Resistance is in play. In 2005 an elevated TG/HDL ratio was identified as an important Insulin Resistance "Red Flag.

The two critical paragraphs from What if it has All been a BIG FAT LIE

[What if It's All Been a Big Fat Lie? - The New York Times \(nytimes.com\)](http://www.nytimes.com)


1 "The crucial example of how the low-fat recommendations were oversimplified is shown by the impact potentially lethal in fact—of low-fat diets on triglycerides which are component molecules of fat. By the late 60's researchers had shown that high triglyceride levels were at least as common in heart-disease patients as high LDL cholesterol, and that eating a low-fat, high-carbohydrate diet would, for many people, raise their triglyceride levels, lower their HDL levels and accentuate what Gerry Reaven, an endocrinologist at Stanford University, called Syndrome X. This is a cluster of conditions that can lead to heart disease and Type 2 diabetes."

2 "It took Reaven a decade to convince his peers that Syndrome X was a legitimate health concern, in part because to accept its reality is to accept that low-fat diets will increase the risk of heart disease in a third of the population. "Sometimes we wish it would go away because nobody knows how to deal with it" said Robert Silverman an NIH researcher at a 1987 NIH conference. High protein levels can be bad for the kidneys, High fat is bad for your heart. Now Reaven is saying not to eat carbohydrates. We have to eat something."

Please listen to Dr Reaven define Insulin Resistance at our Clinic in Nevada (2004) By this time the list of Insulin Resistance related diseases had expanded greatly.

<https://specialtyhealth.box.com/s/y20wf71ijk317q43njcwixs7kzjxnzgv>

Please see Dr Reaven Relating Insulin Resistance to Heart Attack. The solution, KEEP YOUR INSULIN LEVELS LOW! By 1988 he knew that Triglyceride levels tracked with Carbohydrate intake (Synd X P18)



Dr. Gerald Reaven

Stanford's Dr. Reaven, our extremely generous mentor. He was so far ahead of all the others!
(RIP Feb 12 , 2018)


The Father of Insulin Resistance!

“The cluster of problems that make up (Metabolic Syndrome)-including elevated triglycerides, low HDL cholesterol and smaller, denser LDL particles-encourages damage to the coronary arteries that can trigger a heart attack. **The best way to solve this problem is to attack it at the root that is, to keep insulin levels under control.**”


Syndrome X, The Silent Killer, Pg. 167

Syndrome X was published in 2000!

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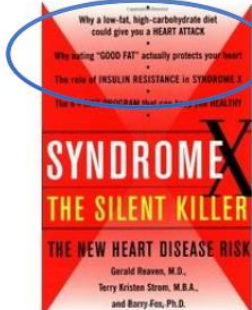


Please see the Cover of Synd X. “Why a low-fat, high-carbohydrate diet could give you a HEART ATTACK.” Dr Reaven rejected low-fat dietary advice for IR individuals. (The Food Pyramid)




Reaven's "Syndrome X"

“Due to a combination of genetics and lifestyle, many of us are insulin resistant. That is, certain cells in our body don't respond efficiently to insulin's call to accept glucose from the blood. Our pancreas then pumps out extra insulin to correct this problem. Ironically, in doing so it lays the groundwork for another, equally dangerous problem: (Metabolic Syndrome), which is caused by the combination of insulin resistance plus compensatory HYPERINSULINEMIA!! ”



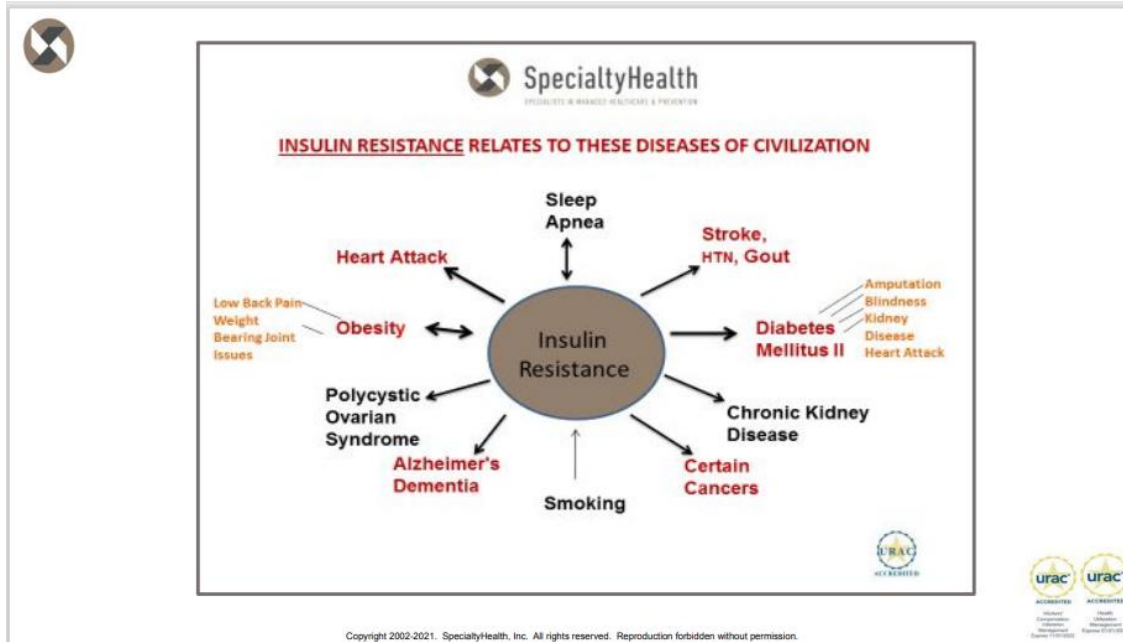
See the blue circle, Dr. Reaven was NOT a low-fat advocate!

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Blue Circle: Why a low – fat- high carbohydrate diet could give you a HEART ATTACK.

By 2004 with Dr Reaven's advice and approval, the list of IR related diseases looked like this. He said “Once you understand Insulin Resistance you will understand the Diseases of Civilization “!



Also, by 2004 we were working with Dr Kevin Gilmartin relating HYPERVIGILANCE to Insulin Resistance. Dr Reaven said!! **"I would expect the Police to be a Very Insulin Resistant group." They Are !**

SpecialtyHealth

Kevin Gilmartin, Ph.D. – Marathon Training with Gene Cudworth,
RPT at Nevada Physical Therapy

Dr. Kevin Gilmartin (our mentor) Understands these issues:

Hypervigilance → ↑ Cortisol → ↑ Glucose

↑ Glucose → ↑ Insulin

↑ Insulin → ↑ Fat

And **INSULIN RESISTANCE!**

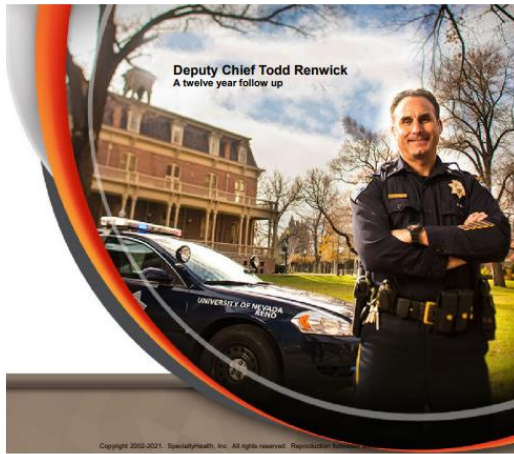
LDL-P: 593 IR Score: 2

As important as the traffic lights and the risk assessment piece is, I believe that Dr. Gilmartin's behavioral piece is even more important. If his issues aren't under control, ours don't matter. Head Psychologist Commander Eric Potterat PhD (Navy SEALs) describes the same metabolic pathways for the SEALs.

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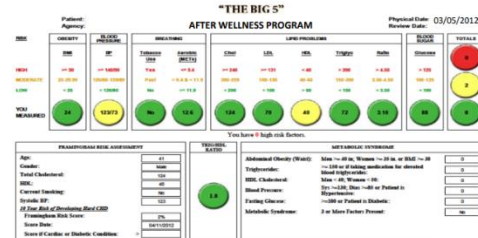
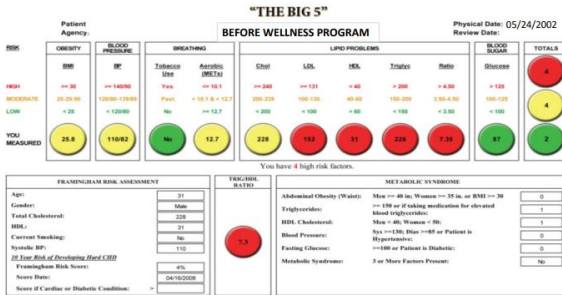
Chief Todd Renwick UNR PD, who you see running in The Dr Reaven video, had a Triglyceride (TG) of 226 and an HDL 31 in 2002. Todd's TG/HDL ratio was 7.3 Todd's lab work demonstrated Atherogenic Dyslipidemia and Insulin Resistant when the program began. I was also IR with a TG of 200 and an HDL of 40. My TG/HDL ratio was 5. Todd and I were in trouble, we both reversed our Insulin Resistance rapidly using a low -carb dietary approach with advice from an excellent local Physician, Dr Tracey Green.



Chief Todd Renwick at the beginning.

A 10 year follow up.

20 years later CCS is Zero!



Why were our TG's elevated? Dr Reaven tells us. (Insulin Resistance and its compensatory Hyperinsulinemia encourage your liver to produce more VLDL. VLDL is a triglyceride-rich lipoprotein, the more VLDL you make the higher your Triglyceride level. More VLDL leads to more fat in your blood and a greater risk of heart disease! Synd X P 43). Todd and I did not understand the importance of elevated triglycerides or the TG/HDL ratio in the beginning. We did not have the classic Synd X triad or 3 of the 5 abnormal elements that define the Metabolic Syndrome. Increased Abd girth, Increased BP, Increased TG, Low HDL and FBS > 100 a later sign. We also did not know that the ideal human triglyceride is ~ 75 mg/dl. In 2005 a TG/HDL ratio of > 3.5 indicated Insulin Resistance and an increased risk of CVD in both genders (Am. Journal of Cardiology, McLaughlin, Reaven, Krauss et al. Is there a Simple Way to Identify Insulin-Resistant Individuals at Increased Risk for Cardiovascular Disease?) The elevated TG/HDL ratio became our sorting mech for the Police following Dr Reaven's advice. Later Dr Reaven would lower the ratio's cut points to > 3 for males and > 2.5 for females.

2005 Dr. Gerald Reaven American Journal of Cardiology

Is there a Simple way to identify the IR patient at high risk for Cardiovascular Disease? YES!

TG/HDL ratio > 3.0 male and > 2.5 female = IR

The TG/HDL ratio becomes our sorting mechanism.
You can all do this simple calculation!!

For a Police Department arrange the Officers from the highest to the lowest!!

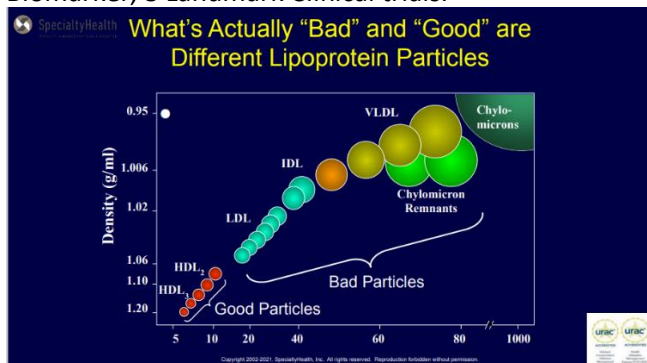
Be concerned about the **MEN** with the highest ratio!



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We also got to know Kevin Gilmartin PhD Psychology well by 2004. Dr Gilmartin's Emotional Survival for Law Enforcement, first edition (2001) was very important! Hypervigilance, Cortisol, IR, The Magic Chair, Wear the damn Hat, The Scoutmaster, The Lake of Death, you are All going to get screwed! Kevin's themes are Universal! By 2005 Dr Gilmartin was seeing and reporting incremental weight gain and the drift towards T2D frequently in Police populations. Kevin was witnessing the evolution of Insulin Resistance in his travels and training sessions, just as Dr Reaven described. Dr Gilmartin strongly encouraged exercise adequate sleep and other coping strategies to help lower both the Insulin and Cortisol levels.

Dr Bill Cromwell (Lipidology) visits Nevada in 2004 "It's Not the Passengers It's the Cars" LDL-C, the so called "Bad Cholesterol," is *incorrect* > 50 % of the time! Why not just flip a coin? This fundamentally flawed biomarker is Underpowered, Misleading, and sometimes even Dangerous! What is Actually Good and Bad, LDL-P or Apo B, are the particles carrying triglyceride and cholesterol. LDL-P is a vastly superior Biomarker, 3 Landmark Clinical trials.



We begin measuring the particles in Police using LDL-P in 2006. It's critical that we understand the Discordance associated with IR! Please Stop trusting and reacting to LDL-C! Trust the Lipoproteins instead! We also added HbA1c to the annual Nevada Police physical data set. Anything worth measuring is worth measuring well!

Insulin IS Our Primary Fat Storage hormone! Gary Taubes. Good Calories Bad Calories 2007 Top 10 list #9 P 454 The less Carbohydrate you consume the leaner you will be! In 2013 GT presents Quantico using the identical top 10 list! **Add Obesity to the INSULIN RESISTANCE associated diseases.** **When you meet an overweight Police officer the first question should be, IS HE INSULIN RESISTANT?**

[Gary%20Taubes%20Introduction%20Top%2010-Only%5b552%5d](#)

2008. Chief Steve Pitts RPD. The RPD project begins. By Dec 2012 Resiliency as a Path to Wellness is published in Police Chief magazine. Steve thinks like a Homicide Detective and the Police appreciate great evidence! Using the TG/HDL ratio we reverse IR in as little as 4 months in 9 RPD officers. Drop the Carbs and the triglycerides follow. IR Officers can lose weight and reverse IR quickly (4 months!) TGs drop rapidly, the HDLs tend to climb more slowly. We learn not to ask for volunteers, you get the “worried well “. Seek out those likely to be Insulin Resistant using Triglycerides and the TG/ HDL ratio primarily. Jackie Cox develops a robust database; Dr. Reaven says he has never seen anything quite like it.

The Police Chief
The Professional Voice of Law Enforcement

Look for our article in the December, 2012 issue of *The Police Chief*

Resiliency as a Path to Wellness

Written by:

Chief Steven Pitts, Reno Police Department (Retired)
Dr. James Greenwald, Medical Director, SpecialtyHealth
Robb Wolf, Author: *The Paleo Solution*
Jackie Cox, BSN, MPA, President/CEO, SpecialtyHealth

View at: <http://www.policechiefmagazine.org/stevepitts1826@gmail.com>

Chief Steve Pitts
Reno Police Department

LDL-P: 816 IR: 28

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SpecialtyHealth's Wellness and Prevention Program Return on Investment
Jacqueline C. Cox, RN, BSN, MPA
President/CEO
January 2013

The ROI included in the publication of Police Chief described how the SpecialtyHealth's prevention program applied to 15 City of Reno's Public Safety Officers.


The ROI of 20 to 1 was based on healthcare cost and disability benefits.

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The Insulin Resistance wheel. Dr Reaven liked it a lot! What was **OUTLANDISH** in 1988 had become Accepted Knowledge, it took 20 years! **INSULIN RESISTANCE IS the underlying pathology driving so many "Diseases of Civilization"** **Keep your** Insulin levels low! Attack IR at the root We are recommending Low-Carb frequently occasionally adding Intermittent fasting per Dr Jason Fung. THEN WE MEASURE!! Remember that triglycerides are not “Drug-able “. Big Pharma does not care. Pharma makes \$\$\$ selling statins to lower cholesterol, billions in fact, so an LDL-C focus is what they support. Big Food is also conflicted, Carbs are cheap. They tell us that various high-carb cereals loaded with sugar are “Heart Healthy” (The AHA logo is a for sale. It is a disgrace!) Insurance makes money on “sick care,” they are disincentivized to support effective primary prevention programs. THE TRUTH IS; when it comes to Wellness and Prevention for the Police, WE ARE ON OUR OWN! (We started thinking about Train the Trainer programs to deliver a metabolic message to the Police that works!)

2010 SSA Russell Kleber comes to Nevada. A Dr Gilmartin referral. We add Lp(a) to have a complete the Police panel! This dangerous “Rogue” lipoprotein and enhancing CVD risk factor, is found in ~ 20 % of the population!

In 2010, SSA Russell Kleber had a heart attack



SSA Russell T. Kleber

In January, 2012 Dr. Kevin Gilmartin introduced Russell to SpecialtyHealth.

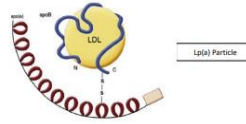
In March, 2012 Russell came to Reno with two questions:

1. Could our program have identified him as a high risk patient?
2. Was his heart attack preventable?

It's not just firefighters that have heart attacks that surprise us. This can happen to police officers and FBI Agents as well. In 2010, Russell Kleber was passing his bi-annual physicals and thought he was doing everything right. He certainly didn't look the part, but in fact he suffered a very serious heart attack and survived an extremely close call, barely. I got to know Russell a year and a half later, and he was still haunted by the events of 2010 and wanted to know "Why Me?" Russell came to Reno to visit us and understand our "Traffic Lights". Everyone loves our "traffic lights", "Trust The Traffic Lights". They will point you in the right direction. You might ask, as Russell did, what are we missing? Most often it is insulin resistance, and the "Traffic Light" tell the story.



Why oh WHY! don't people test for Lp(a)?
"Do it once, do it early"



William Cromwell, MD

Lp(a) is present in 20% of the population, 1 in every 5!

See page 5 of your Laboratory Measures handout

This rogue lipoprotein can be involved with plaque and clotting disorders.

How can we possibly know if this independent cardiovascular risk factor is present if we don't test for it?



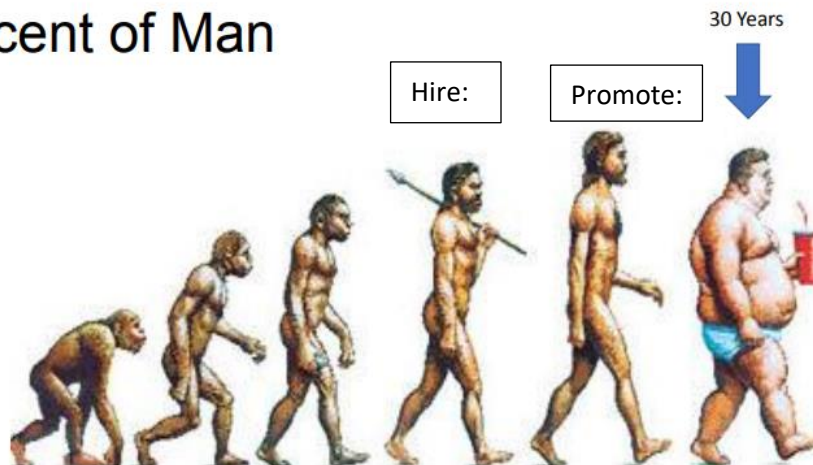
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Also do not miss Familial hypercholesterolemia, frequency 1/220. Extremely dangerous! LDL-C > 190 is a FH clue, Maurice Scardigno. Fortunately, FH and Lp(a) positive patients can be referred to the FH Foundation site for ongoing education. We encourage cascade testing! Familial Hyperchylomicronemia! (FHC) is a rare indication for a low-fat diet. So, there is one indication for low-fat. TGs > 850 Associated with pancreatitis (FHC can be life threatening) Very uncommon, we have seen 2 cases in 20 years. Today we do not hesitate to recommend the PCSK9s in primary and secondary prevention settings. A more powerful lipoprotein particle lowering medication than the statins. Possibly with fewer side effects. For the genetic/familial group **"How many Atherogenic Particles and for How long" is the critical concept.** (Dr Bill Cromwell)

Dr Gilmartin, Weight gain and the drift towards T2D. Kevin begins to compare IR officers to the Hungry, Insulin Resistant Bear getting ready to hibernate! *PERFECT!* Dr Gilmartin recognizes that weight gain over the course of a Police career could be Insulin Resistance progressively getting worse. Hypervigilance (part of the job) contributes to IR with increased cortisol levels initially. Elevated Insulin levels promote fat storage, (It is not Your Fault!). Ascent of Man (slide, I give it to Dr Gilmartin)



Ascent of Man




Our goal is to identify metabolic dysregulation in Police populations at the earliest opportunity. Avoid the slowly progressive 30-year train wreck with appropriately powered early testing. This may require a combined Behavioral and Metabolic approach! ~400 copies of ESFLE are distributed along with our metabolic interventions. Exercise is recommended as a therapeutic intervention to burn sugar. Drop the

sugar and lower the Insulin levels. We work to reverse IR using a Low-Carb/ Ketogenic dietary approach. Flip the metabolic switch and drop the insulin levels so that officers can become “Fat Burners.”

Robb Wolf moves to Nevada in 2011. Lucky for us! NYT best-selling author: The Paleo Solution, Wired to Eat, Sacred Cow with Diana Rogers. Robb adds the concept of ‘leaky gut’ to the Diseases of Civilization. Robb becomes a Partner and Board Member at SpecialtyHealth. We collaborate with Robb on many Law Enforcement Professionals. Our testing methodology is largely the same. Robb’s Keto Master Class is excellent, the topics covered in Sacred Cow are timely today. We have many patients in common with Robb. (Dr Pran’s Evolution of the Human Gut provides a current update on gut related pathology and IR)



2011



- Robb Wolf moves to Reno in November.
- Shortly afterward he becomes a very important partner and SpecialtyHealth board member.
- Robb brings “Leaky Gut” to the mainstream (Gluten intolerance)
- Paleo/Low Carb is what we start with!!
- 1,000,000 New web site hits per month

“Unless you think of things in medicine from an evolutionary point of view, nothing makes any sense.”

Revision Date 3/7/21

Robb Wolf




- 2x New York Times bestseller
- Former Research Biochemist
- Former California State Powerlifting Champion
- Member of the board of directors at SpecialtyHealth

“Lies, Damn Lies & Statistics” Bonus Chapter by Robb Wolf (attached)




Dr. Pran Yoganathan: <https://youtu.be/bpo8vMy0wqY>

2012, 13, and 14 6 separate visits to the FBI Leadership conferences at Quantico. LEEDS with Dr Kevin Gilmartin, SSA/ Chief Russell Kleber, Chief Steve Pitts. Many invited guests contribute (Dayspring, Dall, Taubes, Zirlo, Scardigno Smith etc.) The visits to the FBI NA change The Police program in a positive way! Three different testing sessions (Arranged by SSA Russell Kleber) were extremely important! Many of the > 100 tested Officers from all over the world become friends. The results of this intervention are summarized in the last 10 pages of LC for LE. **Excellent medicine ALWAYS starts with the correct diagnosis.** Not 1 of the 51 Insulin Resistant Officers was aware of their correct diagnosis. Astounding! **Are You INSULIN RESISTANT? Becomes the most important single question for Law Enforcement!** Also, not one of the 17% who tested positive for Lp(a) was aware that they carried this nasty rogue lipoprotein. It is a small wonder that Dr Violanti documents correctly “Cops die Young” in Dying for the job 2014. Chapters 2, 3 and 4 in John’s Dying for the Job document beautifully the Metabolic, Cardiovascular and Cancer issues facing Law Enforcement. We agree with Dr Violanti. We are sure that the leadership at the Police Officers Memorial is well aware of Dr Violanti’s many contributions to the profession.

2015 The DOJ conducts a site visit at the Reno Police Department. Chief Steve Pitts RPD (ret) is in charge. Ms. Nancy Leach completes the documentation, Cpt 5 of a report to the DOJ and the City of Reno Police Program becomes the only Wellness and Prevention program mentioned in the DOJ’s 6 Pillars of 21st century Policing. **We emphasize the importance of early recognition of Insulin Resistance in Law Enforcement!** This effort sets the stage for other visits to DC.

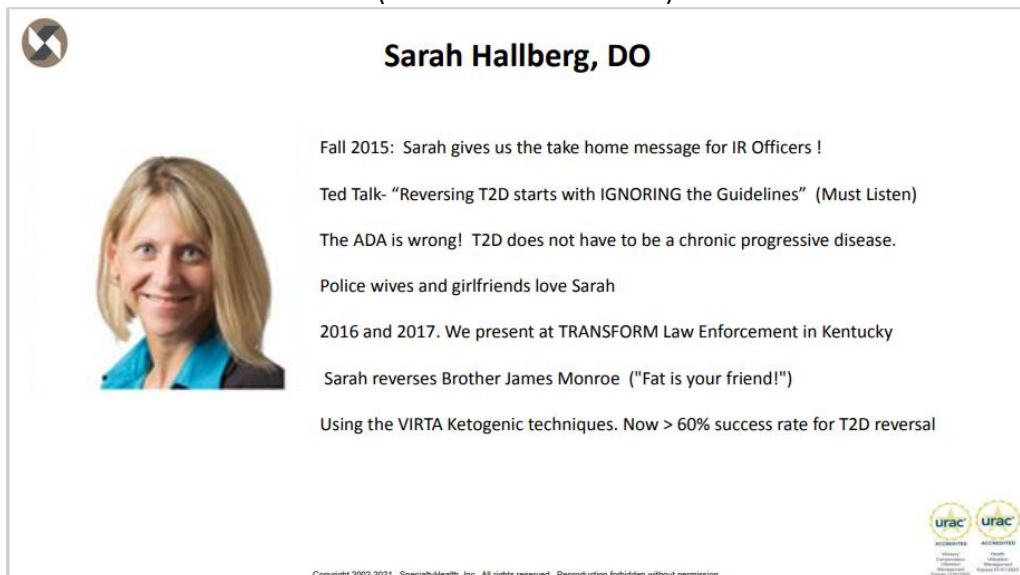
[DOJ%20Overview%20Reno%20Police%20Department%20Wellness%20Wellness%20Initiative%5b513%5d](#)

Summer 2015 We are invited to present at the IACP. The DOJ allows us to submit the RPD site visit paper with Dr Bill Cromwell writing scientific edits about the specifics of NMR testing. See Chapter 2 of Physical Survival for Law Enforcement!

[physical%20survival%20part%202](#)

Please notice the many yellow highlights!! Dr Cromwell documents the science behind NMR testing as only he can! I finally met Dr John Violanti in Alexandria VA. We had dinner together and agreed on the metabolic issues facing Law Enforcement. We plan for further collaboration. Please see Occupation under Siege by Dr Violanti 2021. included. Have the stressors associated with Policing increased recently? We believe that they have.

Fall 2015. Dr Sarah Hallberg from Lafayette Indiana delivers her famous Ted Talk; Reversing T2D starts with IGNORING the Guidelines (~ 9 million views so far!)



Sarah Hallberg, DO

Fall 2015: Sarah gives us the take home message for IR Officers !

Ted Talk- "Reversing T2D starts with IGNORING the Guidelines" (Must Listen)

The ADA is wrong! T2D does not have to be a chronic progressive disease.


Police wives and girlfriends love Sarah

2016 and 2017. We present at TRANSFORM Law Enforcement in Kentucky

Sarah reverses Brother James Monroe ("Fat is your friend!")

Using the VIRTa Ketogenic techniques. Now > 60% success rate for T2D reversal

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<https://youtu.be/da1vvigy5tQ>

[Sarah's%20Food%20Rules%5b514%5d](#)

T2D IS Reversible with LC /Ketogenic interventions (Phinney Volek Westman). In our opinion, one of the most important talks for first responders and their families Through mutual friends we meet and get to know Dr Sarah Hallberg. Remarkably, we later learn, the Hallberg's and Chief Patrick Flannelly are backyard neighbors in Lafayette. Sarah becomes the lead investigator for the now famous VirtaHealth T2D reversal study conducted in Indiana. **With an astounding 60% success rate reversing established T2D, this investigation changes long held opinions (dogma) within the ADA and then national guidelines for both the ADA and the AHA!!** Dr Hallberg becomes our consultant as we begin our first Train the Trainer Police program with the Lafayette IN PD. Chief Flannelly selects Sergeant Ian O'Shields to be Lafayette's first trained trainer (An outstanding choice!). Ian visited SpecialtyHealth in the summer 2017 for 3 days of personal instruction. Ian's training continues in Indiana as various officers are tested and enter the program (We talk at least once a week). **The back stories that Ian provides are invaluable! Ian quickly learns how to interpret the Police panel. Also, his fellow officers have an internal resource who they trust!**



The PURDUE BOILERMAKERS!!
Sarah, Pat, Tony, Ian, Ashley, Orin, and Hagan
Lafayette PD- A model for the nation



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Officer training materials are provided on a case-by-case basis depending on the specific diagnosis. No one size fits all. By the time Ian's training began we were very happy with the Police panel. The LP-IR score (IR score) especially! Just as we saw at Quantico, LP-IR is more sensitive for identifying IR early. All the usual IR suspects are sought out. Increased Abd girth, increased BP, increased TG (remember 75 mg/dl is ideal) low HDLs and increased FBS along with the TG/HDL ratio. Has your pants size increased? What in your mind is your ideal weight? LP-IR is added to triglycerides and the TG/HDL ratio looking for Insulin Resistance. With that we identify easily an additional 15 to 20 % of at-risk IR officers! The data from the Police Panel changes management ~ 2/3 of the time! With any hint of early or evolving Insulin Resistance the officers and their family LISTEN CAREFULLY TO SARAH'S TED TALK. The first version of Sarah's food rules to tape to the fridge is created (Later Amy Berger CNS from North Carolina updates Sarah's food rules and helps write Low Carb for Law Enforcement) Having a Trained Trainer within a Department reinforces the effort at early IR diagnosis. Credit to Chief Steve Pitts. Train the Trainer was his idea initially "It's like having your own "Embedded Asset" looking out for your Command ". Steve said. The Police and Community training center in Lafayette Indiana is an outstanding facility! Built under the leadership of Chief Patrick Flannelly. We like everything about the Lafayette training center, including the 'Sugar Free" posters on the walls! Chief Flannelly could tell the Police Officers Memorial how the training center became a reality. Today Chief Flannelly and Sgt O'Shields oversee the Fitness and Performance elements of the Police program. They have presented these thoughts in Lexington Kentucky (TRANSFORM Law Enforcement with Chief Joe Monroe) and to the IACP and the FOP nationally.

In 2015 Chief Joe Monroe, UKY PD in Lexington puts on his first TRANSFORM Law Enforcement conference in Kentucky.



2015, 16, 17, 18, 19 & 20. Chief Joe Monroe UKY

TRANSFORM Law Enforcement at Galls, Lexington, Kentucky!!



IACP, FOP August 2015 with Science Edits by Dr. William Cromwell, Texas x2, California (many times), Arizona, etc.

Lafayette, Indiana PD (Train the Trainer)- Chief Pat Flannelly & Spec. Ian O'Shields, The Model For The Nation

LA- Redondo Beach with Dr. Mark Cucuzzella, Chief Pitts and Dr. Bill Cromwell, Dr. Jeff Stanley

Run for your Life - T2D reversal (2 cases) with Dr. Jeff Stanley, also with VIRT.A.

Many IR reversal cases. Kaiser in California becomes an issue. We test confidentially with the "FAMOUS" POLICE PANEL!



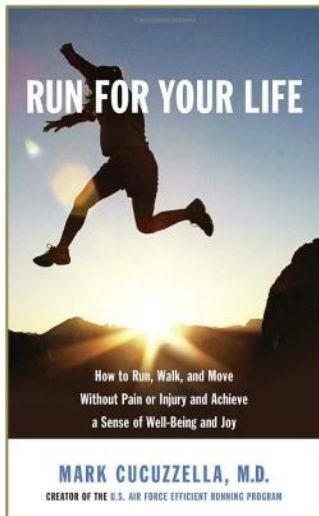
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Chief Pitts, Russell Kleber, Dr Gilmartin, and I first met Chief Monroe at Quantico. Chief Monroe has invited us back to Kentucky 8 different times. The Police program continued to improve with every Kentucky visit. Recently Chief Monroe has designated 2 trainers for his department We want to tell one Kentucky story here, there are so many! Around Christmas time 2017 I get a call from Chief Monroe. It turned out that Brother James Monroe (who is T2D and a Police officer) was hospitalized in a coma, diagnosed with diabetic ketoacidosis. What should we do? Joe wanted to know. First, I said, we let the excellent Docs at the University of Kentucky work to resolve the ketoacidosis. Then, when that has been accomplished, we send James to Lafayette Indiana and have him become a T2D Reversal patient of Dr Hallberg (A 256-mile trip)! That's exactly what happened Ladies and Gentlemen. By the time TRANSFORM 2018 rolled around in April Sarah had reversed Brother James' T2D! He lost 45 pounds and was off many diabetic medicines. He looked and felt great. When I got up to give my TRANSFORM presentation that year, I told James' story and asked "What was the most important thing that you learned from Dr Hallberg "? Without any hesitation, Brother James said, **Dr Hallberg taught me that "FAT IS MY FRIEND"**! Ladies and gentlemen, that moment in Kentucky was unscripted. Of course, what Brother James said was correct. Sarah has taught so many Type 2 diabetic patients not to fear fat! **Fats satiate us and cause no Insulin Response**. Another important Dr Hallberg lesson. Why are we as a Nation Fat and Sick? Because, as Sarah says early in her Ted Talk, **It's Medicines fault, The MESSAGE has been wrong!** It HAS All Been a Big Fat Lie in other words (GT 2002). Trace it back to Dr Reaven. Also, how many Carbs are essential? **"Not a One!"** And **"It makes No sense giving insulin to people with a disease of TOO MUCH INSULIN in the first place!"** **Best Ted Talk EVER!** We could easily arrange for Brother James Monroe and Chief Joe Monroe to provide more details about the entire Kentucky intervention. Happy to do that!

In 2017 several Police agencies in LA invited us to present the program at the Redondo Beach performing arts center, a beautiful large facility. . We had 8 months to prepare, so we put together an outstanding TEAM of speakers. Dr Jeff Stanley (The Medical director of VirtaHealth from Portland) was given 2 T2D patients. Jeff had both officers fully reversed by the time the conference began using a classic VirtaHealth intervention! Lots of weight loss, many diabetic medications discontinued. Jeff's presentation was OUTSTANDING with the two Police officers themselves participating in the Q and A session. Also 2 presentations by our partner Dr Mark Cucuzzella from WV. were very well received. Mark is an elite endurance athlete and a friend of Dr Gilmartin. For 30 years in a row Mark had run at least 1 marathon per year in under 3 hours! In some years more than 1 (Guinness Book of Records material!) Mark put on a Running clinic the night before the LA conference teaching officers and their families how to run SPRINGY! Fortunately, you can all see Mark running today. Simply google Dr Mark Cucuzzella, The

Principles of Natural Running and watch Mark's 8 min video. Mark is an Air Force veteran (Lt Col), he developed the Air Force Slow Running program that he could discuss at the Memorial. Dr Cucuzzella lives 120 miles from DC, he would be happy to come for a visit. Please see excerpts from Mark's book, Run for Your Life, Part 6 in Physical survival for Law Enforcement. **"You CANNOT outrun a Lousy Diet!" "Says Dr Mark Cucuzzella. The math simply does not work!"**

Mark Cucuzzella, M.D.



Creator of the U.S. Air Force Efficient Running Program, athlete with 30 straight years of running marathons in under 3 hours, physician of family medicine in West Virginia, and a leading pioneering running doctor

"The principles outlined in this book are transformational" –Mike Plunkett, The Washington Post

"He (Cucuzzella) has turned a small town in an obese state into a running-crazed bastion of health" –Peter Larson, Evolutionary biologist at Saint Anselm College

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[00Physical%20Survival%20for%20Law%20Enforcement%20PDF%209-7-21%5b508%5d](#)

Another Air Force veteran and Police program teammate is Amy Berger CNS from North Carolina. Amy is an outstanding speaker! So that you can see for yourself we included a link to an Alzheimer's presentation Amy gave in 2018. <https://youtu.be/uzwarr6Dgpw> We have followed Amy closely since reading her book, The Alzheimer's Antidote (2017) Highly recommended. Fortunately, I was able to recruit Amy to help write Low Carb for Law Enforcement when Chief Jerrod Hart in Michigan requested additional information as he was reversing his T2D. (See P 23 and 24 of LC for LE). Ladies and Gentlemen, it continues to amaze us how confused people become about carbohydrate restriction. Not Amy and Dr Eric Westman from Duke, the 32 pages that Amy wrote are extremely popular! (Please excuse the "Cop Talk," inserted at Dr Gilmartin's request). We wanted to give Law Enforcement something that they would actually read. Your colleague, William Alexander at the Police Officers Memorial understood the Low Carb message right away and rapidly reversed his Pre-Diabetes diagnosis. Bill lost ~ 47 lbs. during his journey and felt much better. Bill's before and after data is included. **His LP-IR score dropped 26 points!** The Police Officers Memorial now has its own Internal CHAMPION. Bill also had a Coronary Calcium Score (CCS) of ZERO performed at Johns Hopkins (included). P39 of LC for LE (Almost all in yellow highlights) describes principles of Bill's Pre-Diabetes reversal very well. **We Are in the Midst of a Huge Paradigm Shift!** The Police Officers Memorial is positioned to be the TIP OF THE SPEAR. Cops do not have to die young. THAT'S REDICULOUS!

[NMR%20Alexander,%20William%5b540%5d CCS%20Alexander,%20William%5b518%5d](#)

We mentioned that Bill Alexander underwent a CCS at Johns Hopkins. We arranged Bill's testing at Johns Hopkins with Dr Michael Blaha for a specific reason.

[CAC%20-%202021%20Update%20merged%20V1%5b532%5d](#)

In Nov of 2021 Dr Blaha (Cardiology at JH) gave a superb update on the CCS at Lake Tahoe. I was in the audience, I told Michael later that he just gave the best talk on the Coronary Calcium Score that I had ever heard! Dr Blaha's presentation is included here The CCS was added to the AHA guidelines in 2018 (Long OVERDUE in our opinion). The critical point is that **a CCS of ZERO, as we saw with Bill and one other friend from DC, allows us to DE-RISK our patients.** The profound sense of relief that officers experience when they get the good news is so gratifying. Perhaps with help from Bill and SSA Jennifer Hurley, both referrals from Dr Gilmartin, we could even invite Dr Blaha to visit to the Police Officers Memorial and give the Police a CCS update. As SSA Jennifer Hurley completed an outstanding career with the FBI, she was in charge of Counter terrorism at the Pentagon. Jen really understands HYPERVIGALANCE, every call could "Be the Big One." She says. We believe that you would enjoy meeting both Jennifer and Dr Blaha. Jennifer also had a CCS of Zero performed at Johns Hopkins, where she got her Masters.

On Friday Dec 9, 2022, I spoke with two officers reviewing their recently completed Police panels. One officer was clearly Insulin Resistant. That officer received the same materials that we send to All Insulin Resistant officers #1 Study the Sarah Hallberg Ted Talk (there will be a quiz we say) <https://youtu.be/da1vvigy5tQ> #2 Tape the latest version of Sarah's food rules to the fridge (included) [Sarah's%20Food%20Rules%5b514%5d](#) #3 Study Low Carb for Law Enforcement (included) [A%20Low%20Carb%20for%20law%20enforcement%20final%5b592%5d](#). Sometimes, as in Bill Alexander's intervention, this is all that they need. However, if they want more assistance or advice Amy Berger's contact information is included. I have watched Amy coaching, **she is Outstanding!** Remember, Sugars, High Fructose Corn Syrup (HFCS) and High Glycemic Carbs can be addictive. It's not a failure to need additional support. The officers I spoke with on Dec 9 will **take their Police panel data to their personal physician with a New Diagnosis ALREADY MADE!** And a plan available when Insulin Resistance has been identified. That's the point of the Police effort! That's what we call the PARADIGM SHIFT! **Medicine, as it is practiced today, is poorly designed to communicate complex and counterintuitive topics like Insulin Resistance! And to effectively treat and reverse the problem! We realized years ago that a new way of thinking and problem solving would be necessary. Train the Trainer has provided our most effective answer for the Police so far.** In 2018 we collaborate with Dr Thomas Morrow from Atlanta. Tom describes the LP-IR score, GlycA and his thoughts on the state of diabetic care and Insulin Resistance beautifully in Tomorrow's Medicine .

[2018-03%20Tomorrows%20Medicine%20LPIR%20Submission%5b524%5d](#)

Sgt James Brack with The Bellevue PD has been a Trained Trainer with us for almost 2 years. James' educational background and temperament make him ideally suited to teach and coach the metabolic elements of the Police Program. **James has a deep and fundamental understanding of Insulin Resistance!** James has given many local and national presentations IACP, FOP, KENTUCKY etc. We included a recent presentation that James gave to the NYPD so you can see for yourselves.

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It was very well received! Recently, working with Sgt. Frank Voce, NYPD and Reps for Responders James and I partnered with Dr Tro Kalayjian also from New York city. Dr Tro is a Nationally known, Yale Trained Obesity Specialist who has lost ~ 150 lbs. If you wish, we could arrange a ZOOM call with Frank Voce and Dr Tro so that you could hear the story yourself Dr Tro has the ideal demeanor for the Police! Not always easy to find.

Please let me show you our favorite before and after pictures of the entire 20 + year Police experience. Detective Jon Eager with the West Lafayette PD (Purdue) is an Outstanding Patient! Jon was clearly Insulin Resistant (Pre-Diabetic) and troubled with ongoing back pain when we first met. We talked about the program and how I thought his back pain and metabolic parameters would improve if he followed the low carb /ketogenic recommendations. Please see Jon's before and after pictures that he sent last Halloween.



[Labs%20Eager, %20Jonathan%2011.2022%5b548%5d](#)
[AdvancedRisk%20Eager, %20Jonathan%2011.2022%5b547%5d](#)

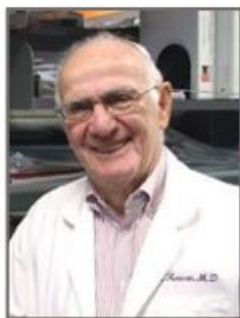
In Nov of 2021 Jon was 6 5 weighing 330 lbs. By Nov 2022 he was 6 5 and weighed 248 pounds, having diligently followed the program. (Chief Patrick Flannelly and Sgt Ian O'Shields both consulted with Jon). Jon called me just after Halloween and sent the pictures you see in his ELVIS costume. So, in 7 months Jon lost 82 lbs. and his Police panel corrects beautifully. (Before and after data included) Jon's **Insulin Resistance score dropped > 50 points!!** Almost the clinic record. It's only a 100-point scale. And his back pain was much improved! Notice how he stands so much straighter! What you are seeing is basic Orthopedic Biomechanics in action (See Part 9, Insulin Resistance, and the Musculoskeletal system in Physical Survival for Law Enforcement). We appreciate Detective Eager letting us share his pictures and data! We understand that without Chief Flannelly's leadership in the beginning, Dr Sarah Hallberg, Sgt Ian O'Shields and recently DC David VanVactor from the West Lafayette PD we would not have these wonderful pictures. Train the Trainer works!

Kevin Gilmartin, PhD Psychology has overseen the Behavioral elements of the Police program since the early days (2004). For years Dr Gilmartin has said that we need to break down Silos and Unite the Behavioral and Metabolic portions of the program. In the past we visualized the issues facing the Police as a Venn diagram with three overlapping circles. One circle representing Fitness and Performance. A second circle representing Behavioral issues, and a Third circle, the Metabolic piece, Insulin Resistance

primarily as you now understand. Of course, the 3 Circles OVERLAP, Sometimes A Great Deal! And each individual Officer's Venn diagram and challenges are unique, That's a Critical Point! It can be challenging to successfully resolve complex Behavioral issues when the Officer is Metabolically impaired. Clearly, it's difficult to perform optimally when the Officer is Insulin Resistant. We find ourselves sometimes wondering which issue came first. Did the Insulin Resistance precede and even precipitate the Behavioral issues? **Is Insulin Resistance the Silent and Deadly Spector Haunting Police Everywhere? We believe so, and Dr Reaven agreed. We have been saying this for years. We share these thoughts with Dr John Violanti.** Recently prominent Psychiatrists and Psychologists are recognizing the same interrelationships. Severe Psychiatric illness unresponsive to medications is currently being reversed using Ketogenic therapies at Harvard (Dr Chris Palmer, Psychiatry) See Dr Palmer's new book Brain Energy , *Excellent* ! For years seizure disorders (epilepsy), unresponsive to medications, have been responding to Therapeutic Carbohydrate Restriction. (This work is ongoing at Johns Hopkins today). Friends of ours from Stanford University are currently relating Depression to Insulin Resistance using the TG/HDL ratio, Pre-diabetes, and central adiposity to document IR severity! (Incident Major Depressive Disorders Predicted by Three Measures of Insulin Resistance: A Dutch Cohort Study Psychiatry 2022) Doesn't this sound familiar? One of the Stanford Psychiatrists, Natalia Rasgon MD PhD actually worked closely with Dr Reaven in the past! Dr Tro Kalayjian sees the metabolic and mental issues as "Intimately Related "when he is treating complex obesity issues. You need to address both components to be successful, Dr Tro likes to say. Amy Berger CNS from North Carolina speaks eloquently about Alzheimer's Disease as Type 3 Diabetes or Insulin Resistance of the Brain. The Insulin Resistant brain of the patient suffering with Alzheimer's disease is literally "Starving for Fuel." And the brain is an "Energy Hog" Amy says. Recently in Nevada we have been manipulating metabolic parameters in Alzheimer's patients (Creating Ketones) to provide the brain with an alternative energy source. The results are sometimes remarkable in a disease thought to be uncurable. Manipulate the Metabolism and watch the "Lights Go On! Amazing when you see it happen first-hand. This brings us back to Dr Gerald Reaven's statements to us almost 20 years ago. "I would expect the Police to be a very Insulin Resistant group "Dr Reaven was correct. And "Once you begin to wrap your head around Insulin Resistance you will understand the Diseases of Civilization "Dr Reaven used the term OUTLANDISH when he first related Insulin Resistance to Cardiovascular disease, Hypertension and Type 2 Diabetes 35 years ago. Today Dr Reaven's thinking is Progressive and Cutting Edge! We tell every Peer Support group we meet, it's **time we merge the Metabolic and Behavioral Silos!!** If we can accomplish that; the Police could lead the Nation out of the Metabolic mess that it is in.

Thanks so much for considering our Destination Zero application on behalf of the Train the Trainer Police programs in Lafayette and West Lafayette Indiana Police Departments Ladies and Gentlemen. We look forward to your review and comments.

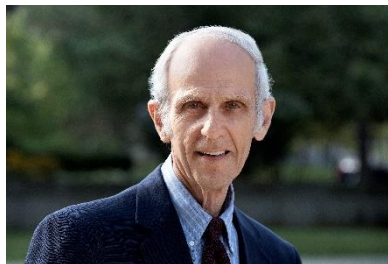
Sincerely Chief Patrick Flannelly, E James Greenwald MD., and our entire Police TEAM.



Dr. Reaven



Dr. Hallberg



Dr. Violanti



Dr. Gilmartin

Documents included.

1 Emotional Survival for Law Enforcement Revised Edition 2021 Kevin Gilmartin Ph
Pg. 159 – 164 The hungry insulin resistant bear

2 Occupation Under Siege 2021 Dr John Violanti

3 Low Carb for Law Enforcement Berger, Gilmartin and Greenwald
[A%20Low%20Carb%20for%20law%20enforcement%20final%5b592%5d](#)

4 Physical Survival for Law Enforcement Multiple authors
[00Physical Survival for Law Enforcement PDF 9-7-21\[474\].pdf](#)

5 Why We Get Sick Ben Bikman PhD 2021 (Perhaps the most comprehensive IR text available today)
See pg. 163 and pg. 183-202