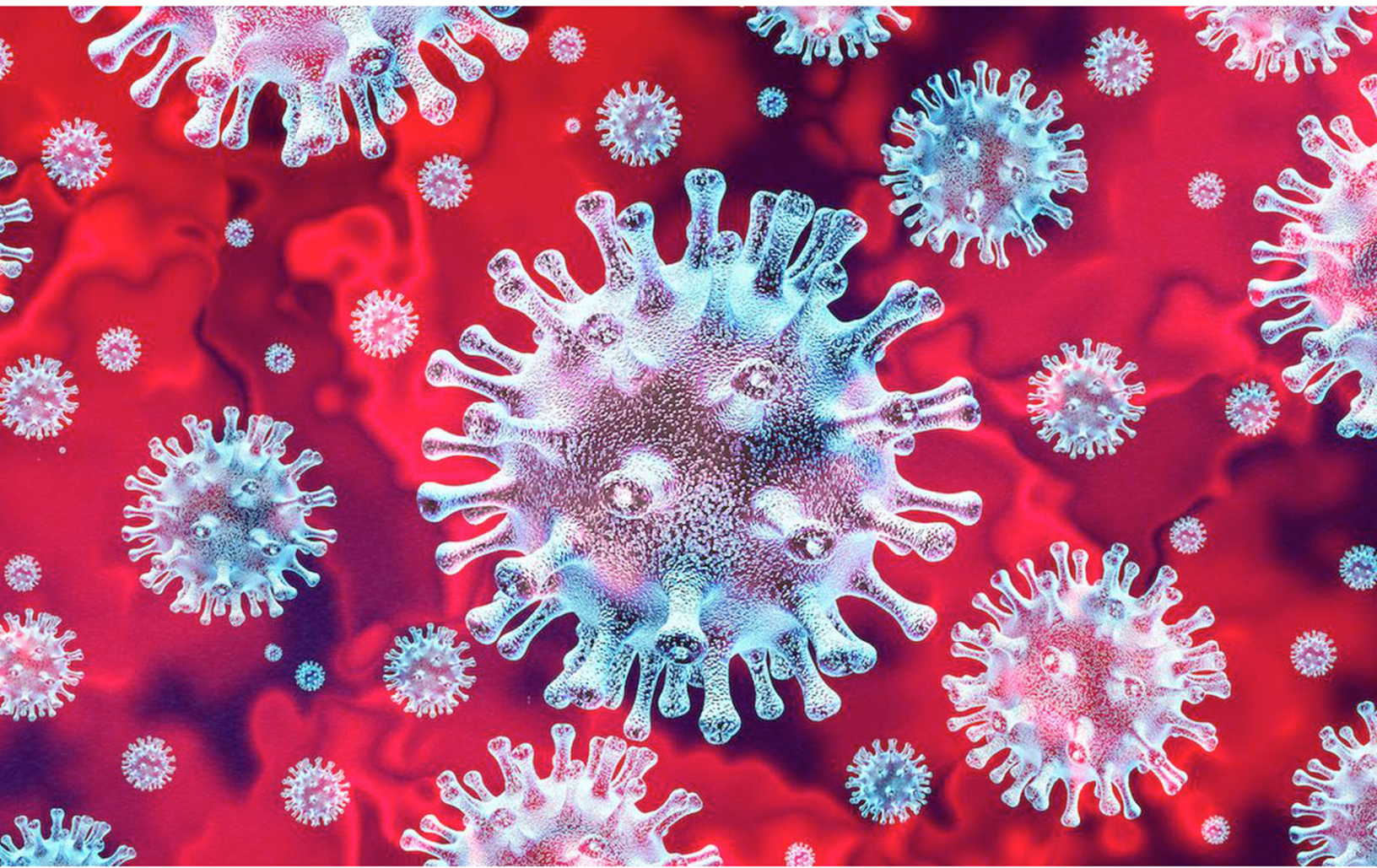


COVID-19 and Diabetes



**The astonishing connection
that nobody is talking about!**
by Dr. Graham Simpson MD

COVID19 AND DIABESITY

Introduction

Hans Selye MD, the father of modern day research on stress (he coined the term) pointed out in his book, *The Stress of Life*, why, when children become ill from a virus at school, only 20% of the children become ill? This is very similar to the Covid19 pandemic today. Why if 60% plus of the American population get the virus 80% have little illness or nothing at all.

Less than 10% of people go to hospital and only some of these folks are admitted – a few go to the ICU and less than 1% of people die. Perhaps as Selye and others (for example Claude Bernard the French physiologist) claim the “soil” (the individual) is far more important than the “seed” (Covid19 in this case).

I would like to expand on this work by Selye and others and my clinical experience over the last 40 years and suggest that the true cause of the deaths in the current epidemic are due to Diabesity. Diabetes and Pre-diabetes now affects 53% of adult Americans (with similar stats in other developing countries).

In fact, 88% of adult Americans now have “insulin resistance.” I believe that this is the real cause of who lives and who dies in the current pandemic not Covid19!

The Facts

In one of the largest systemic reviews on the association between diabetes mellitus and incident infections. **(1)** There was a clear positive association between diabetes and respiratory infection.

Italy’s National Institute of Health (2) published the top 10 common health conditions that increase the death from corona virus (March 24, 2020):

1. Hypertension – 76%
2. Diabetes Mellitus – 35.5%
3. Cardiovascular Disease – 1/3
4. Atrial Fibrillation – ¼
5. Cancer in the last 5 years – 20.3%

6. Chronic Kidney Disease – 18%
7. COPD – 13.2% *
8. Stroke 9.6%
9. Dementia – 6.8%
10. Chronic Liver Disease – 3.1%

All these diseases are due primarily to “insulin resistance.” 99% of Covid19 patients who died in Italy had at least 1 or more of these cardio-metabolic diseases. Most of these patients were overweight or obese with an average age of 78 years old.

*Patients with COPD over the past several decades show that this group had decreased consumption of whole grains, fruits and vegetables and fish and have an increased consumption of processed and refined foods mainly in developing countries. **(3)** That is most patients with COPD also have insulin resistance.

The UK in April began distributing one and a half million home meals to Britain’s most medically vulnerable people, who most needed to be shielded from the virus. The week supply of food is not the nutrient diet a sick person needs and is akin to the Standard American Diet (SAD). The cardiologist Dr.Aseem Malhotra says, despairingly, that diets high in glucose like this cause chronic inflammation which makes it harder to fight acute infections when they arrive.

A few days ago Dr. Steven Smith reported on Fox News that the Seattle Group reported in the NEJM that 50% of ICU admissions with Covid-19 had a BMI average of 33 which is obese. His study of 72 Covid-19 findings are shown below:

DR. SMITH’S COVID-19 FINDINGS
<ul style="list-style-type: none">▪ 72 Covid-19 Patients▪ 21 were Pre-diabetic (29.2%)▪ 34 were Diabetic (47.2%)▪ Average BMI of Severely Ill Patients: 30.7

He went on to say that of 20 of his own patients that needed to be intubated 18 had diabetes and 2 pre-diabetes.

Recently Stefanie Eschenbacher **(4)** reported in Reuters on 26th March 2020 of the 475 confirmed cases of Covid19 reported in **Mexico** 4 of the 6 first deaths had diabetes. A seventh Mexican who died in Peru from Covid19 (the seventh death) also had diabetes. Yesterday, the 27th of March, it was reported on CNN that in **Louisiana** (the most recent epicenter for Covid19) 41% of patients who died from the virus had diabetes (97% had 1 or more comorbidities and may have 7x poorer outcomes than N.Y.).

The association between death from a viral pandemic and diabetes was really only truly noticed in the 2009 H₁N₁ pandemic. Many countries for example **Canada** noticed that patients with diabetes tripled the risk of hospitalization and quadrupled the risk of admission to the ICU. **Germany** noticed that having diabetes doubled the risk of fatal outcomes. **(5)**

How Does Diabetes Increase Your Risk for Dying?

1. 90% are overweight (This is an independent risk factor for severe influenza like illness).
2. A high blood sugar increases respiratory infection.
3. A high blood sugar decreases neutrophil degranulation.
4. High blood sugar on pulmonary epithelial cells increase virus infection and replication.
5. High blood sugar suppresses the antiviral immune response.
6. High blood sugar impairs recruitment of macrophages into the lungs.
7. High blood sugar is associated with poor lung function (decrease in FVC and FEV₁).
8. Diabetes increases secondary bacterial infections which are responsible for most deaths.
9. Glucose fluctuations are very important – this varies from person to person irrespective of the HbA1c levels and is responsible for endothelial dysfunction (and increased apoptosis).
10. “Glucose fluctuations” causes endothelial cells to increase ICAM, VCAM, VEGF, HMGB, IL8, NF alpha beta, e-selectin, and increases monocyte adherence to endothelial cells.

Note: Endothelial cells, while not being the primary target for Covid19, play an important role in disease pathogenesis due to the marked increase in inflammation:

- Pulmonary endothelial cells produce increase in cytokines which drive pulmonary lesions and mortality.
- Endothelial cells also indirectly control the inflammatory response via the expression of adhesion molecules (e-selectin, P-selectin, ICAM₁ and ICAM₂). Overexpression of these molecules impairs pulmonary function by allowing uncontrolled extravasation of leukocytes into the alveoli. These leukocytes damage the lung and impair respiratory function.

11. Persons with diabetes are also prone to pulmonary infections due to gastroparesis, diminished cough reflex and disordered sleep patterns.

12. There is also microangiopathic changes in the basement membrane of pulmonary blood vessels and respiratory epithelium as well as non-enzymatic glycosylation of tissue protein.

In an article last week in the N.Y. times entitled “**Americans are already too diseased to go back to work right now**” (6) Dr. David Ludwig and Dr. Richard Malley point out that the huge burden of obesity and other chronic conditions among the people in the USA puts most of us at direct risk. In fact, this is one reason that the United States is much more affected than countries like South Korea and China, our outcomes – economic and health wise – could be much worse. Today more than 2 of 3 adults have high body weight and 42% are obese, among the highest rates in the world. Excessive weight and a poor quality diet that causes it, is strongly associated with insulin resistance, chronic inflammation and other comorbidities that can lower immunity to viral respiratory conditions. In a California study in the 2009 influenza pandemic, people with obesity were twice as likely to be hospitalized. A similar study conducted in 2013 with the Middle East Respiratory Syndrome (MERS) caused by another Corona Virus reported similar findings.

In fact, only 12% of Americans over the age of 20 are considered metabolically healthy that is the optimal measures of waist circumference, blood sugar, blood pressure and lipids and not taking drugs to control these risk factors.

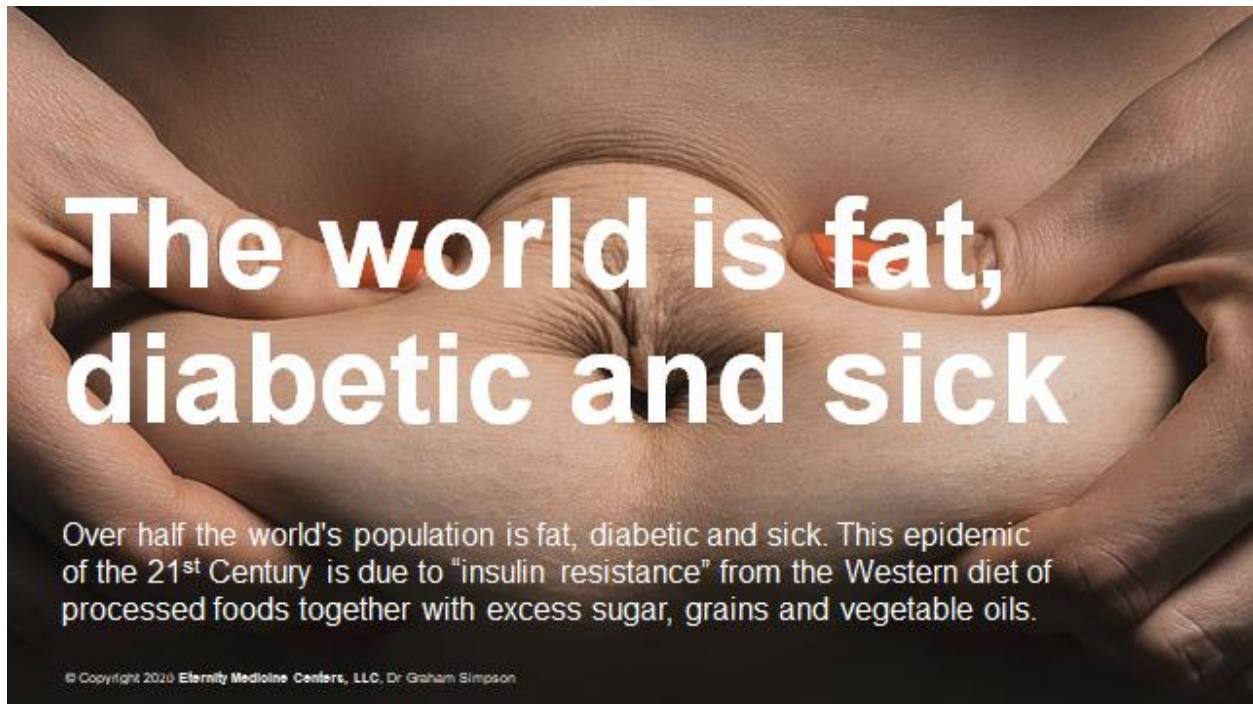
It is precisely because Covid-19 exposes, now more than ever, the importance of helping people restore their metabolic health. This virus has

revealed the added risk faced by people with diet related to cardio-metabolic disease.

Obesity and Diabetes (Diabetes) are both due to “insulin resistance” caused by excess sugar, grains and adulterated plant oils. 80% of cardio-metabolic disease (and 80% of healthcare costs) result from Heart Disease, Stroke, Hypertension, Cancer, Alzheimer’s, Autoimmune Disease, Kidney and Liver Disease. Insulin resistance will increase your chances dramatically of dying.

Our goal is to help you **Live Below 5.0** – and reverse your chance of not only dying from Covid-19 but most of the cardio-metabolic disease that now affects 80% of the global populations.

Diet-related diseases need a diet related solution and my sincere hope is to help to democratize health globally at little or no cost.





80%

80% of most disease seen today by doctors around the world is Cardio-Metabolic Disease - **the elephant in the room.**

This 21st Century global pandemic is due to “insulin resistance”.

Diseases like Heart Disease, Cancer, Alzheimer's, Obesity, Diabetes and Autoimmune disease etc. account for

80% of global healthcare costs.

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SUMMARY OF THE FACTS YOU SHOULD KNOW ABOUT COVID-19 AND DIABESITY

- 1) Diabetes + Obesity = Diabesity
- 2) Diabesity is caused by “insulin resistance.”
- 3) 88% of adult Americans have some degree of “insulin resistance.”
- 4) 52% of adult Americans have Pre-diabetes or Diabetes (JAMA Dec 2015) (the same is true in other developing countries).
- 5) A BMI of more than 30 means you are obese (we use relative fat mass).
- 6) More than 50% with Covid-19 with BMI >30 are admitted to the ICU.
- 7) A HOMA-IR score greater than 1.9 means you have pre-diabetes or diabetes.
- 8) Few elderly folks with a BMI in the normal range get admitted to the ICU.
- 9) Of 20 Covid-19 patients (intubated) in one study 18/20 had Diabetes and 2/50 had pre-diabetes.
- 10) All patients with Diabesity have increased “insulin resistance” and inflammation, and once infected with Covid-19 develop a cytokine storm with severe inflammation that rapidly increases your chance of dying.
- 11) All 10 comorbidities that increase the risk of dying in Italy (and other countries) are due to “insulin resistance.”
- 12) With a Well Formulated Keto Diet (WFKD) and Intermittent Fasting we know we can reverse your diabetes in a few weeks.

10 Worst Pandemics in History

	DISEASE	DATE	DEATH TOLL	CAUSE
1	HIV/AIDS Pandemic	2005-2012	36 million	HIV/AIDS
2	Flu Pandemic	1968	1 million	Influenza A
3	Asian Flu Pandemic	1956-1958	2 million	Influenza A
4	Spanish Flu Pandemic	1918	20-50 million	Influenza A
5	Sixth Cholera Pandemic	1910-1911	800,000+	Cholera
6	Flu Pandemic	1889-1890	1 million	Influenza A
7	Third Cholera Pandemic	1852-1860	1 million	Cholera
8	The Black Death Pandemic	1346-1353	75-200 million	Bubonic Plague
9	Plague of Justinian Pandemic	541-542	25 million	Bubonic Plague
10	Antonine Plague Pandemic	165 AD	5 million	Smallpox or Measles
	Corona Virus	2020	?	COVID-19

NOTE: Small pox has killed between 300-500 million people in its 12,000 years existence. Diabesity, I believe, has killed more of us than smallpox in the last hundred years.

HOW TO PROTECT YOURSELF FROM DYING FROM COVID-19

Step 1: Take the Screening Test

SCREENING QUESTIONNAIRE FOR COVID-19

	SYMPTOMS	YES	NO
1	Under 18		
2	Between 18-64		
3	65 or older		
4	Male		
5	Female		
6	Fever, chills, sweating		
7	Difficulty breathing		
8	New or worsening cough		
9	Sore throat		
10	Aching in body		
11	Vomiting or diarrhea		
12	History of asthma or chronic lung disease		
13	Pregnancy		
14	Diabetes or Pre-diabetes		
15	Overweight or Obese		
16	Kidney Disease		
17	Liver Disease		
18	High Blood Pressure		
19	Travel in the last 14 days		
20	I live in a Covid-19 "hot spot"		
21	I have recently visited a hot spot		
22	I had close contact with a Covid-19 positive		
23	I live with someone with Covid-19		
24	I have no exposure I'm aware of		
25	I live in a long term care facility		
26	I have recently worked or visited a hospital		
27	I have lost smell and taste lately		
28	I am on high blood pressure pills		
29	I take an anti-inflammatory pills (NSAIDs)		
30	I have been told I have a weak immune system		
	TOTAL:		

You may be at risk if you answered YES to 3 or more (We can send you a home test kit for Covid-19 with results in 48hrs)

Step 2: Get a simple 20\$ blood test. Ask for a Fasting Sugar and Fasting Insulin and a HbA1c and calculate your HOMA-IR score.

$$\text{HOMA IR} = \frac{\text{Fasting Sugar} \times \text{Fasting Insulin}}{405}$$

You should be less than 1.9.

If you are between 1.9-2.9 – you have moderate insulin resistance.

If you are above 2.9 – you have severe insulin resistance.

Your HbA1c should be below 5.7 (ideally we should **Live Below 5.0**).

A HbA1c between 5.7-6.4 = Prediabetes

A HbA1c above 6.4 = Diabetes

(If you require further information I suggest requesting my book 4 Week Diabesity Cure (5) from me. As a result of this pandemic I will send you a free e-book).

If your test show you to be prediabetes, diabetes or insulin resistant you are more prone to die with Covid19 especially if you are older than 60 years.

In addition, as mentioned, the endothelial dysfunction and inflammatory response is far worse in those with diabetes and will increase morbidity and mortality.

Over the past several years I have been amazed at how quickly a type 2 diabetic can cure themselves, not by following the ADA or AHA recommendations, but simple employing a Keto diet with Intermittent Fasting. (This is good for both non-vegetarians and vegetarians)

This same approach has been shown in critically ill patients – where not using parenteral nutrition during the first week in intensive care units, and accepting a large macronutrient deficient, resulted in fewer secondary infections, less weakness and accelerated recovery. This can be explained by the suppressive effect of early nutrition on autophagy processes, which may jeopardized crucial antimicrobial defense and cell damage removal.

In our experience most type 2 diabetics can cure themselves in 4-6 weeks if they adopt a Well Formulated Keto Diet (WFKD) and blood sugars will normalize quickly. In fact, after just a single week on the Keto diet clients can lose 1/3 of the fat in their liver (NAFLD). NAFLD is a very important factor for immunity and illness.

A diabetes reversal program. Why?

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BECAUSE....

80%

80% of us die of cardio-metabolic disease due to insulin resistance

88%

88% of adult Americans have insulin resistance (National survey Dec 2018)

53%

53% Americans have diabetes or prediabetes (JAMA Sept 2015)

80%

80% of all healthcare costs are due to "insulin resistance"



The major cause of aging and premature death is due to Diabetes

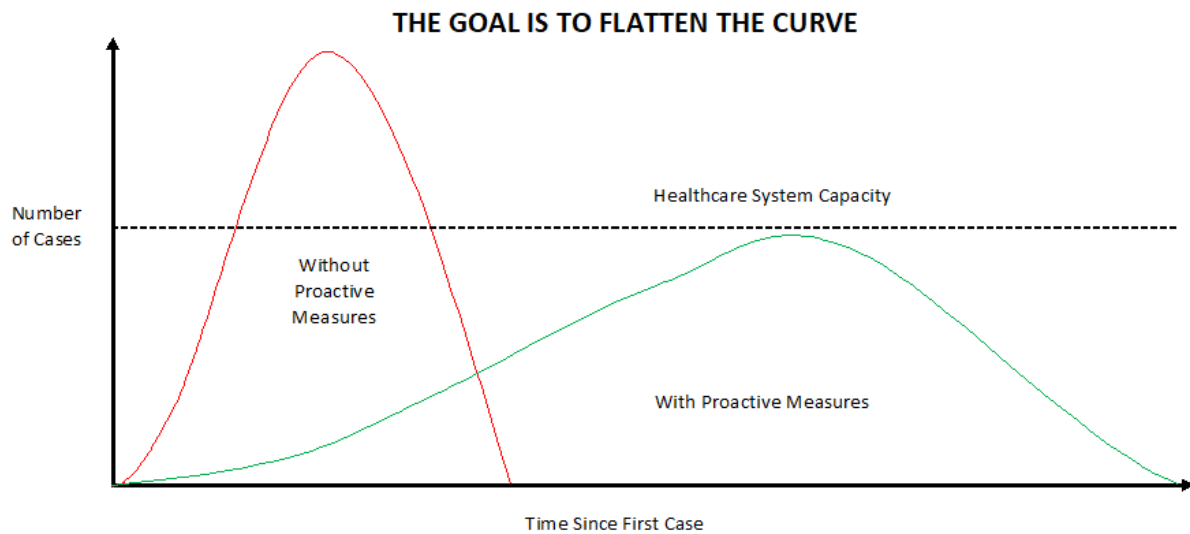
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Step 3: Mitigation: Non-Pharmacological Interventions (NPI's)

NPI's also known as community mitigation are measures that persons and communities can take to slow spread.

These NPI's include:

1. Social Distancing (6ft)
2. Hand Hygiene
3. Cleaning frequently touched surfaces
4. Home Isolation
5. Respiratory etiquette
6. Household ventilation
7. Face Masks (for sick)
8. Bowel Hygiene (spread by poop)



Interesting Note on Hydroxychloroquine (HCQ)

HCQ lowers blood sugar in Diabesity patients. This was presented by Dr. Amit Gupta at the American Association of Clinical Endocrinologists at the 2019 Annual Meeting. HCQ increases intercellular insulin availability and decreases inflammation. It appears to work as well as Invokene (SGLT₂ inhibitor) and is much cheaper (60x200mg HCQ= 25\$ vs 30x300mg Invokene 525\$) – both drop blood sugars from 143 to 112mg/dl plus HCQ lowers BMI while Invokene doesn't. (Also HCQ chops CRP lowering inflammation).

Step 4: Proactive Lifestyle Measures to Increase your Immunity

Nothing will stop a virus once inside of you except your immune system.

1. Keto Diet (Veg or Non-Veg)

- No sugar, grains, adulterated oils this boosts immunity

2. Intermittent Fasting

- 16/8 hours will boost stem cells and immunity

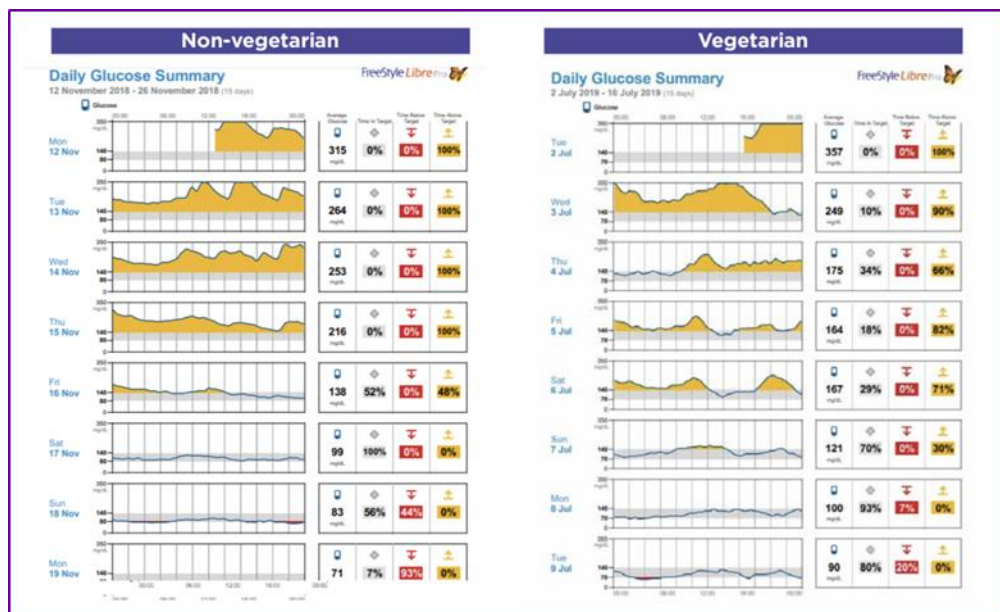
Note: If you are interested in the 4 Week Diabetes Reversal (7) program contact as at info@eternitymedicine.com or call 702 445 6667.

CONTINUOUS GLUCOSE MONITORING

It's important to recognize that the 'Live Below 5.0' office program works for non vegetarian and vegetarian clients alike (see graphs). The primary intervention is a well formulated Keto Diet together with Continuous Glucose Monitoring (CGM) and Intermittent Fasting.

We also add select nutraceuticals and bioidentical hormones in some clients. The ready made self heating keto meals can also be a great help to clients as they begin to change their lifestyle with constant feedback from the Keto Coach and CGM.

Research to date shows that 80% of clients respond quite dramatically with most type 2 diabetics off their insulin in a couple of weeks. The majority of hypoglycemic drugs can also be discontinued although we keep clients on Metformin for its anti-aging properties as it activates AMPK an important nutrient sensor.



3. Sleep

- Get at least 7hours/day. If problems take cocktail of:
5-10,000 IU of Vit D₃ (gel capsule best)
4-500mg of Magnesium
3-5mg Melatonin } helps sleep and immunity

4. Moderate Exercise

- At least 20-30 minutes walking outside in sunlight. Sunlight kills viruses and increases immunity.

5. Mindfulness

- Let us be kind and truthful to each other. Relax! This will pass. Friendliness and laughter boosts the immune system.

6. Nutraceutical Products

I believed a Well Formulated Keto Diet and Intermittent Fasting will reverse most “insulin resistance” in 4-6 weeks no matter how heavy you are. My most recent client was 380 pounds with a fasting insulin of 29.9 and a HOMA-IR of 9.6 showing severe insulin resistance. In 4 weeks he lost over 30 pounds, brought his fasting insulin to 9 and his HOMA-IR to 2.2. His diabetes has completely resolved and his Continuous Glucose Monitoring (CGM) is normal. I have added several nutraceuticals that have worked well for my clients in the past especially in the Covid-19 pandemic.

a) TRIN8TY

This 3 in one product is ideal to reverse insulin resistance. Each of the products helps independently and synergistically to modulate your immune system to lower the inflammation that ultimately shortens our lives especially with Covid-19.

- Keto:** Published studies show that the BHB not only burns fat but will lower blood sugar and insulin levels.
- Biome:** Your diet and microbiome are the two essential keys that will help lower your insulin resistance. A Keto-diet also enhances the biodiversity and health of your gut. This product has both prebiotics and probiotic spores which are shelf- stable and will also help lower body fat in a couple of months helping to reverse chronic disease and susceptibility to infections.
- Inflammation:** This is one of my favorites as all 6 ingredients help lower inflammation in the body. The

patented Curcumin works on two of the major inflammatory proteins NFkB and MSK₁. **(8)(9)(10)** This Curcumin is absorbed in 2hrs rather than the usual 2 days as it contains 60x more of the protein neutralizing component than regular Curcumin. Studies are currently underway with Covid-19 patients in Canada. Sulforaphane from cruciferous vegetables also suppresses NFkB and MSK₁ and controls excessive inflammation and detoxifies cells.**(11)**

Superoxide Dismutase (SOD) also dampens MSK₁ and NFkB and is one of the most powerful antioxidants in the body. Chaga mushrooms and Bioperine also have anti-inflammatory properties.

b) My colleague Dr.Keith Scott-Mumby and I like two other products that we have both used for many years especially now to help protect us from viral infections.

i. **Vit C Ribose Formula**

This product Keith had formulated together with a few other ingredients. The Shanghai Government officially recommended 4-16gm of Vit C daily. **(12)** Often with high doses you can get diarrhea if you don't give intravenously. This product however allows high doses by mouth without problems. I have included dozens of references on published articles regarding the effectiveness of Vit C. **(13)** Vit C helps diminish the cytokine storm and helps protect the alveolar capillaries in the lung from being destroyed. A good preventive dose is 3gm/day of Vit C.

ii. **Zinc**

Increasing the intracellular zinc concentration can efficiently impair the replication of DNA viruses, including polio virus, influenza and corona virus. It is possible that many of the patients dying of corona virus might be zinc deficient. The following table by Bill Sardi compares the symptoms of Covid-19 and Zinc deficiency:

Symptoms of Covid-19 Reported by Emergency Room Physician	Symptoms of Zinc Deficiency
Dry cough	Chronic cough
Nausea w/o vomiting	Nausea
Fever	Fever
Back Pain (Kidney?)	Chronic Pain (low, back, neck)
Abdominal discomfort	Abdominal cramping
Diarrhea	Loose stool
Loss of smell	Altered/loss of taste and smell
Loss of appetite	Anorexia (loss of appetite), wt. loss
Fatigue	Apathy
Atrial fibrillation (new)	Atrial fibrillation
Low lymphocytes (white blood cells)	Decreased immunity
Lower platelets (blood clotting factor)	Low platelets
Neutrophil <u>Lymphocyte Count</u> (NLC >3.13 ↑ risk dying)	Lymphocytes also decline
Interleukin-6 (inflammation)	Increased Interleukin-6
Pneumonia (fluid filled lung)	Pneumonia
Inflammatory (cytokine) storm	Inflammation
Elevated iron storage (ferritin)	Increased storage, transport of iron
Elevated C-reactive Protein	Increased C-reactive Protein

I suggest a dose of 50mg of Zinc gluconate, picolinate or acetate (Don't use zinc oxide as it is very difficult to absorb).

On the following page I have listed the two 4 Week Diabesity Reversal Programs: The Home Program and DIY Program with prices. If you would like to enroll in the program please call Eternity Medicine at 702 445 6667 or contact us at info@eternitymedicine.com

DIABESITY REVERSAL PROGRAMS

The Clients Experience (What Eternity Delivers)		Home Program	DIY Program	Optional Extra Cost
1	Screening for Covid-19	✓	✓	n/c
2	Screening for Diabetes	✓	✓	n/c
3	Interview with Doctor	✓	✗	n/c
4	Anthropomorphic Measurements	✓	✓	n/c
5	Basic Blood Test	✓	✓	± 25\$
6	Covid-19 Home Test	✓	✓	150\$
7	Diabetes APP	✓	✓	n/c
8	Cardio-Metabolic Risk Score	✓	✓	n/c
9	4 Week Diabetes Cure – e-book ¹	✓	✓	n/c
10	The Metabolic Miracle – e-book ²	✓	✗	n/c
11	Keto Coach Certified	✓	✗	n/c
12	Intermittent Fasting and Personalized Keto Diet	✓	✓	n/c
13	Continuous Glucose Monitor	±	±	± 120\$
14	Keto-Urine Sticks	±	±	± 10-15\$
15	Blogs (Weekly)	✓	✓	n/c
16	Videos/Menus/Webinars	✓	✓	n/c
17	Trin8ty	±	±	varies on amount
18	Zinc Picolinate and Vitamin C – Ribose Formula	±	±	varies on amount
19	Length of Program	4-6 weeks	1 week	
20	Total Cost (one-time)	299\$	99\$	

* And other select Nutraceuticals (if needed)

Note: If you are obese and/or pre-diabetic or have moderate diabetes (Type 2) we suggest the **DIY Program**. If you have moderate to severe diabetes (Type 2) or are on multiple medications or insulin we would suggest the **Home Program** with doctor supervision.

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