

Choose Your Path:

Understanding the intersection between metabolic health and modern disease reversal

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January 2026



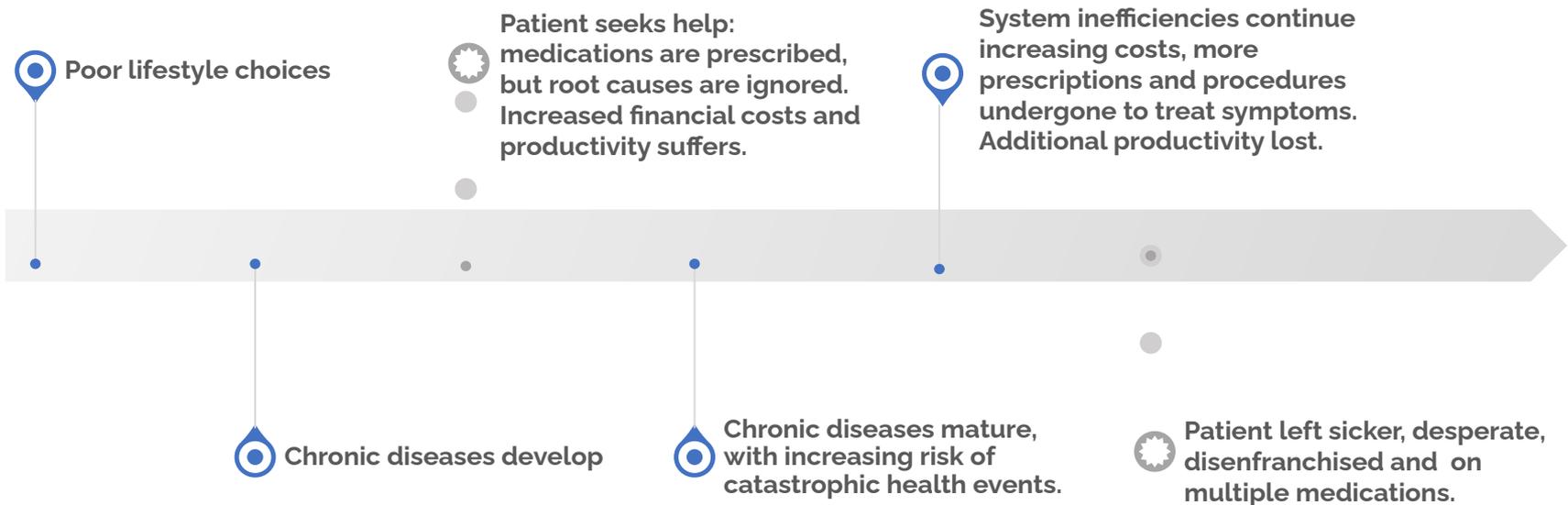
The Status Quo



The Status Quo

The current healthcare model is **expensive** and **does not deliver effective care**.

Healthcare costs continue to go up, and patients are getting sicker.



The Problem



The Problem

A **case study** to demonstrate the problem:

Poor lifestyle choices



Chronic diseases develop

Patient seeks help:
medications are prescribed,
but root causes are ignored.
Increased
prod



Chronic diseases mature,
with increasing risk of
catastrophic health events.

System inefficiencies continue
increasing costs, more
prescriptions and
undergone to treat
Additional products



Patient left sicker, desperate,
disenfranchised and on
multiple medications.



Case #1



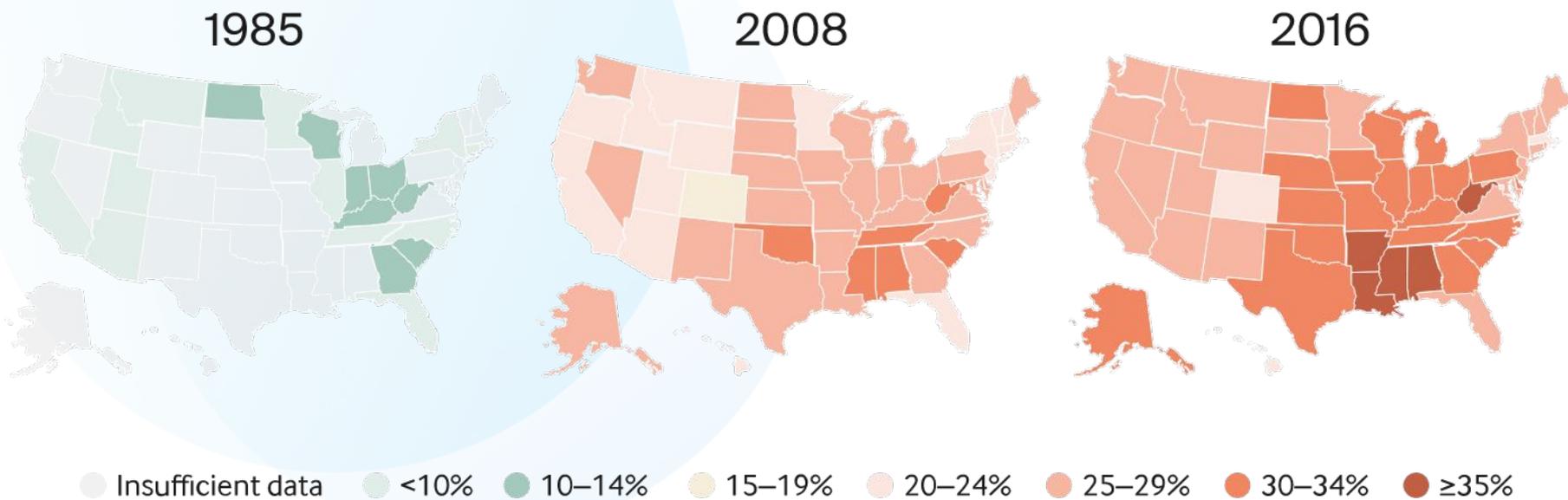
Genetics, the obesogenic environment and thermodynamics didn't change...

What changed?



Let's be detectives together...

What changed?



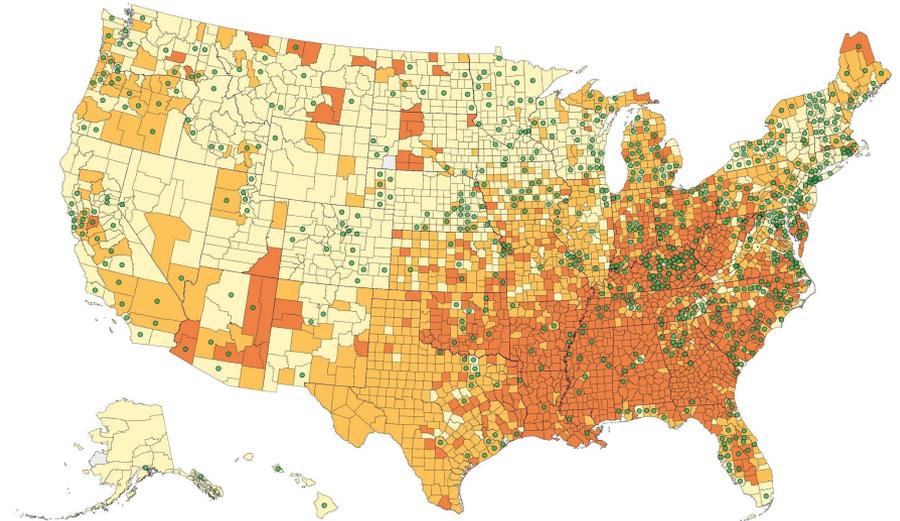
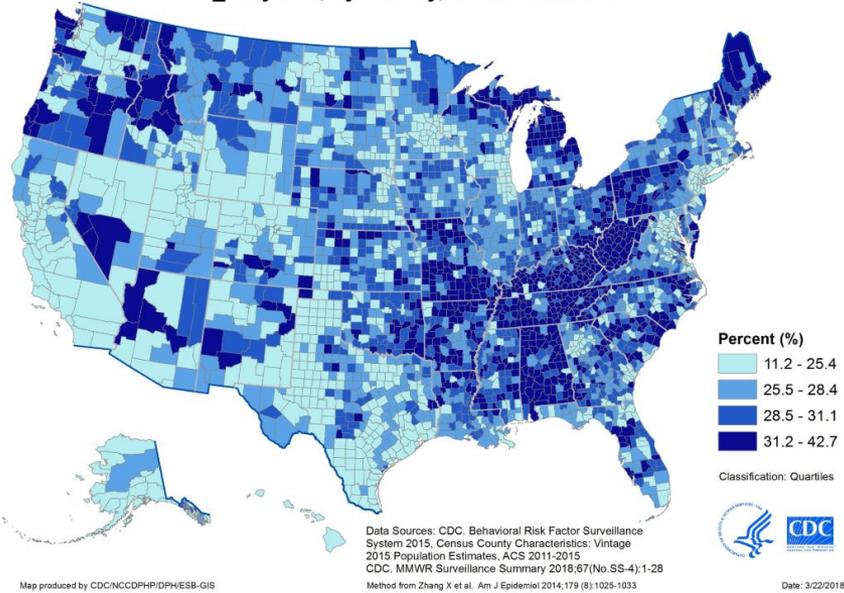
These maps looks eerily similar...

Arthritis

Diabetes

Prevalence by County - 2017

Model-based crude prevalence of arthritis among adults ≥ 18 years, by County, United States 2015

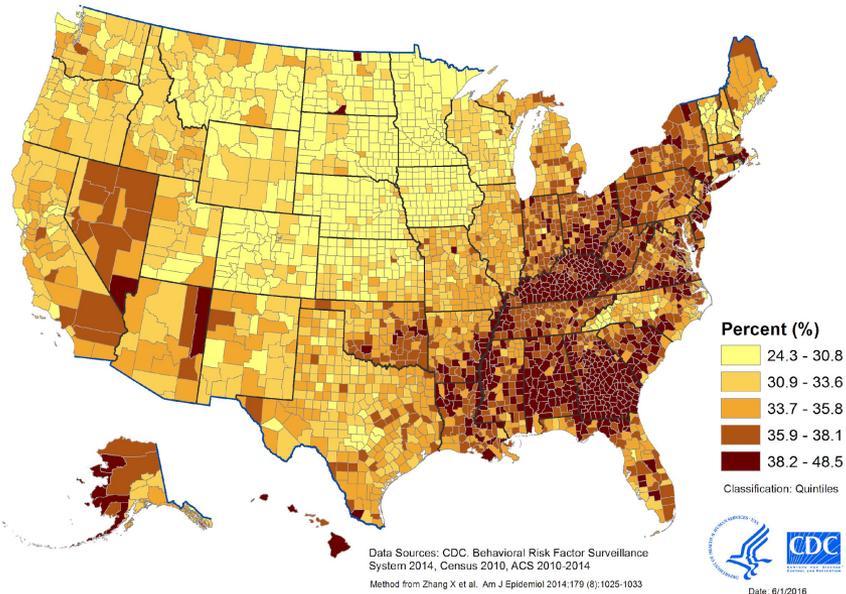


Source: CDC



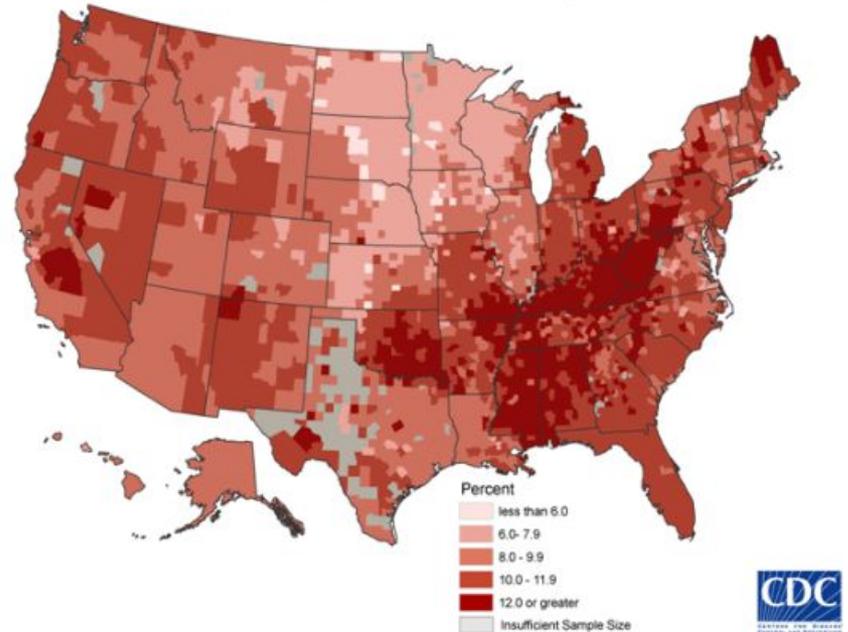
These maps looks eerily similar...

Short Sleep Duration 2017



Mental Distress

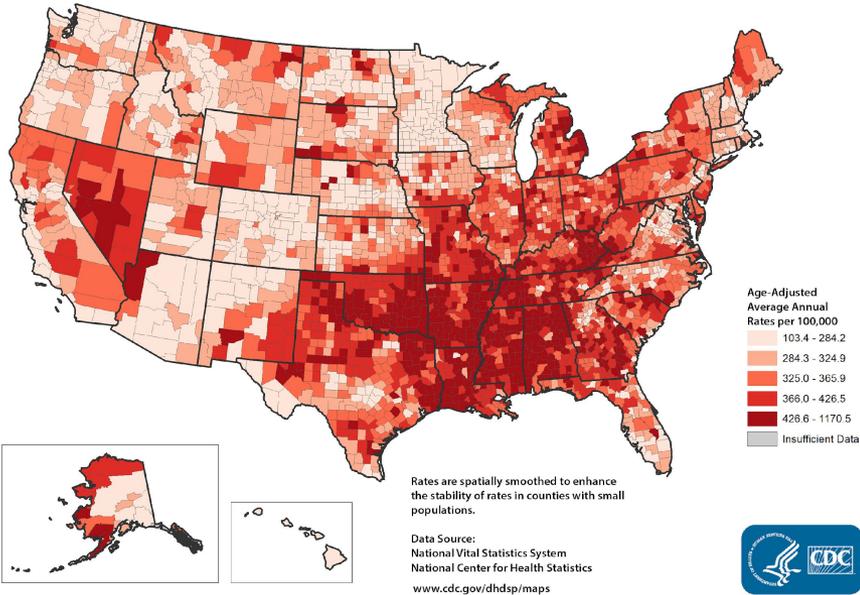
County Level Prevalence of Frequent Mental Distress Among U.S. Adults: 2003-2009



What is going on here?

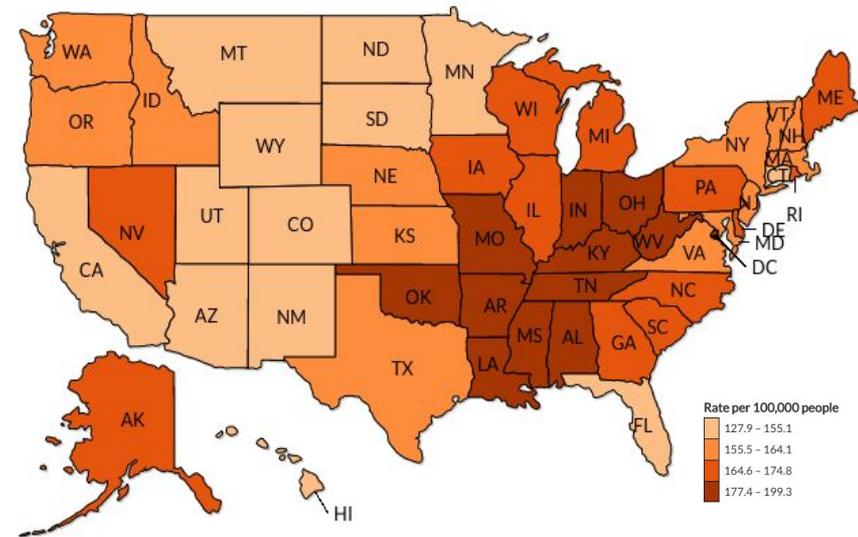
Heart Disease Death Rates

Heart Disease Death Rates, 2014-2016
Adults, Ages 35+, by County



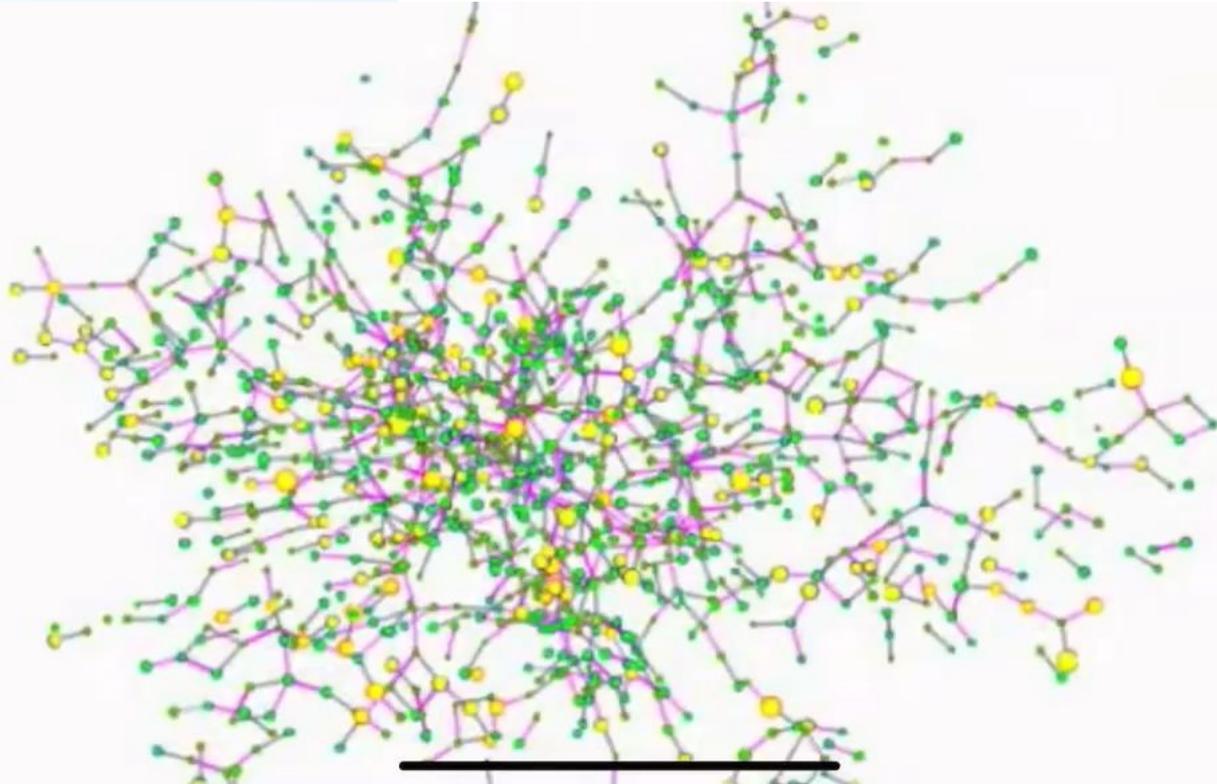
Cancer Deaths

Rates of Cancer Deaths in the United States
All Types of Cancer, All Ages, All Races/Ethnicities, Both Sexes



Let's be detectives together...

What changed?

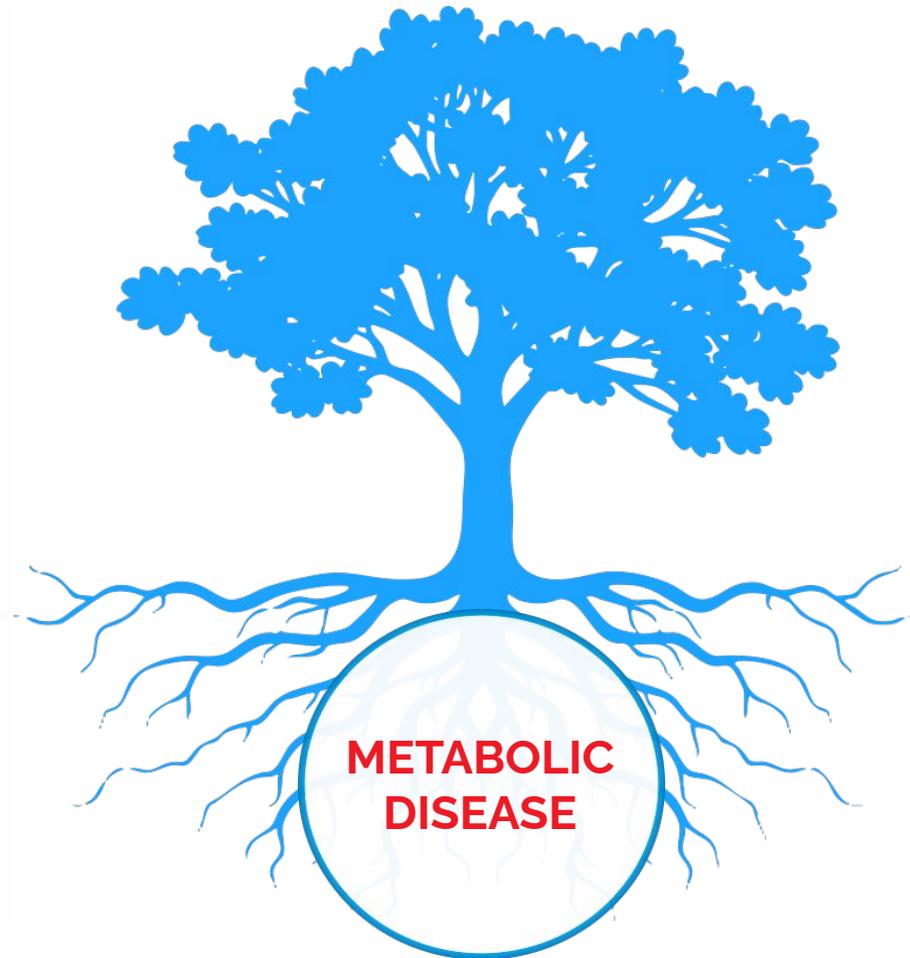


The Problem

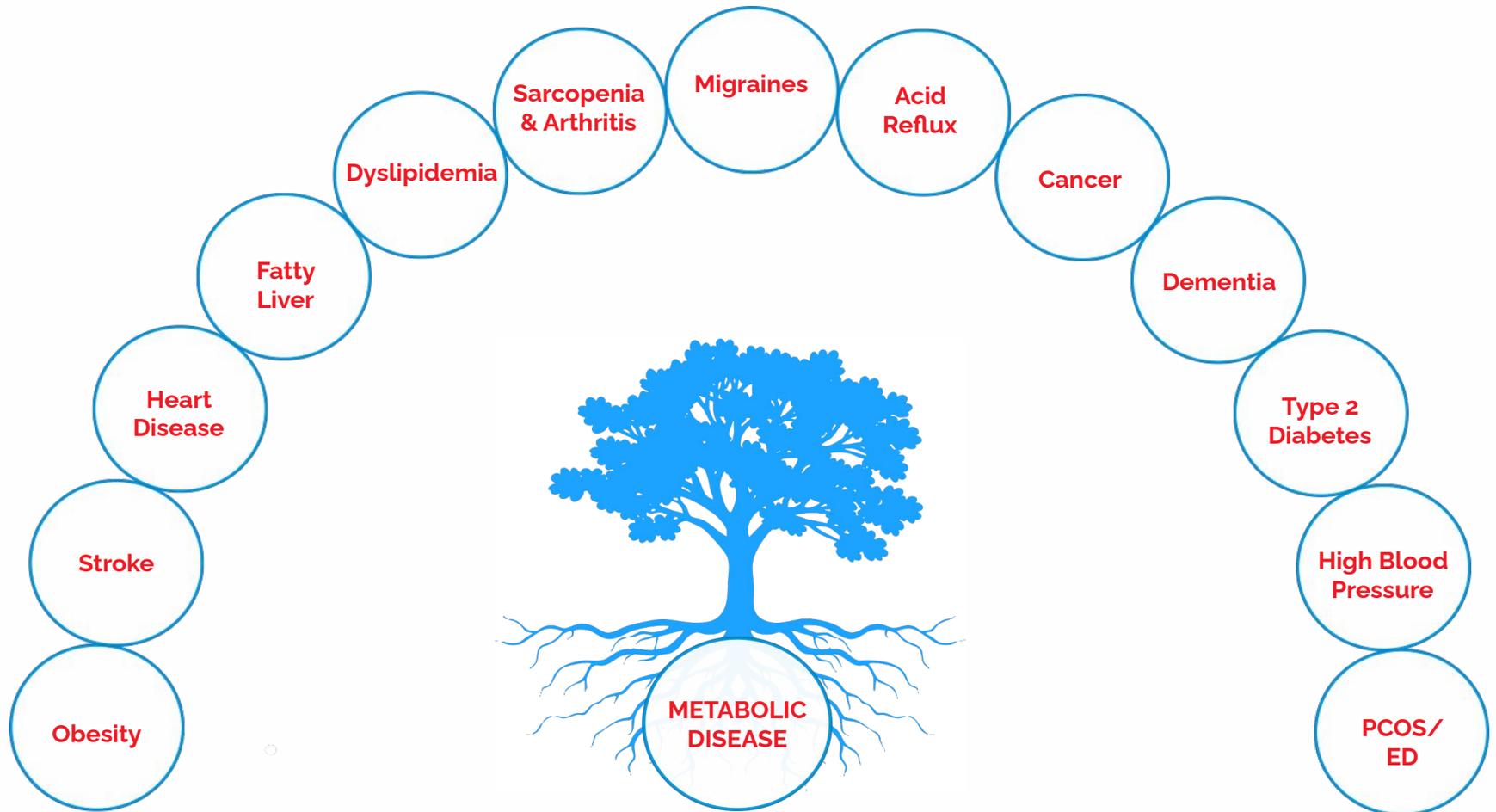
Is it possible
to explain
**modern
chronic
disease**
very simply?



What if chronic disease has a simple explanation...



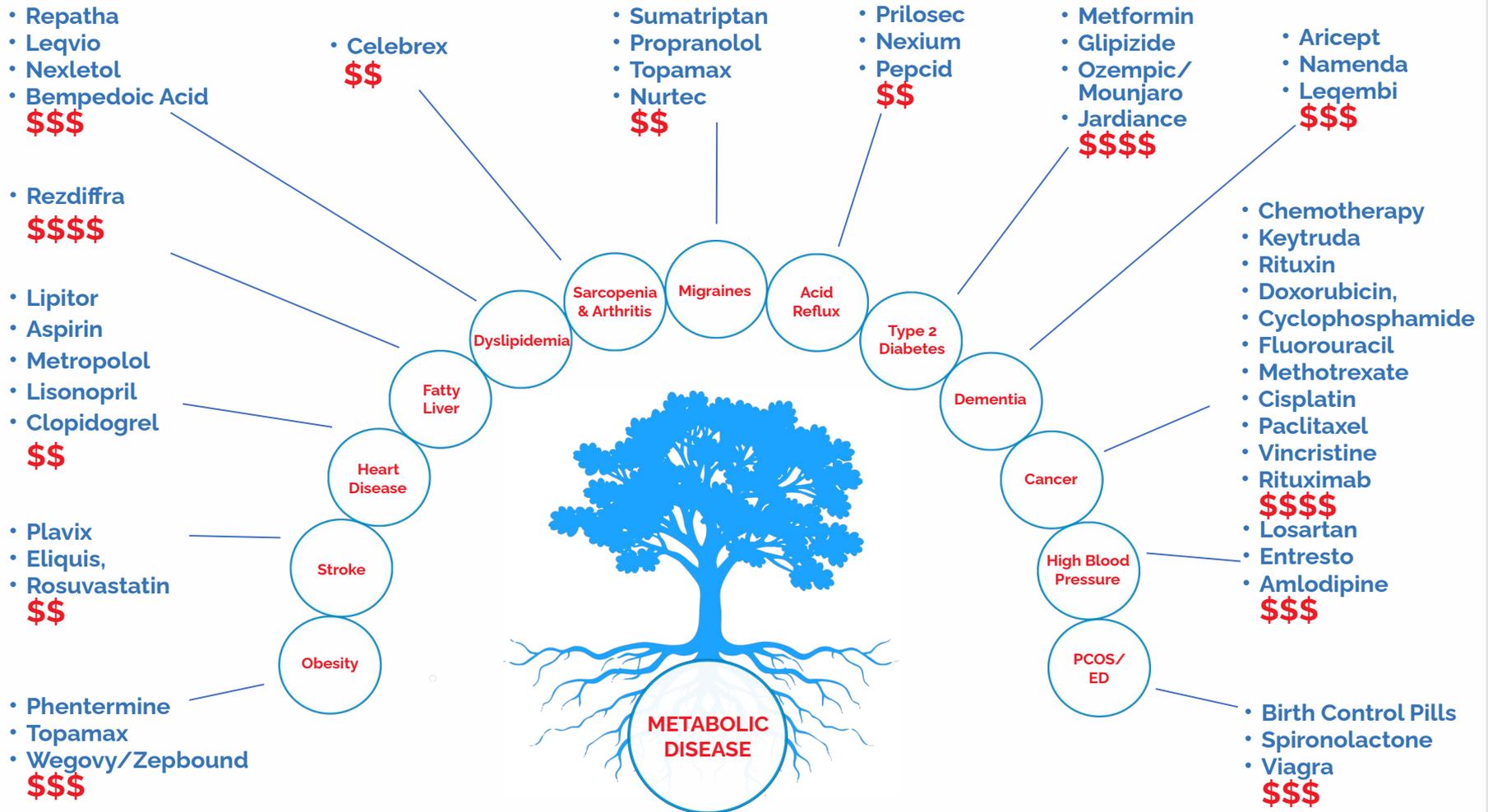
Ignoring root causes leads to multiple secondary diseases...



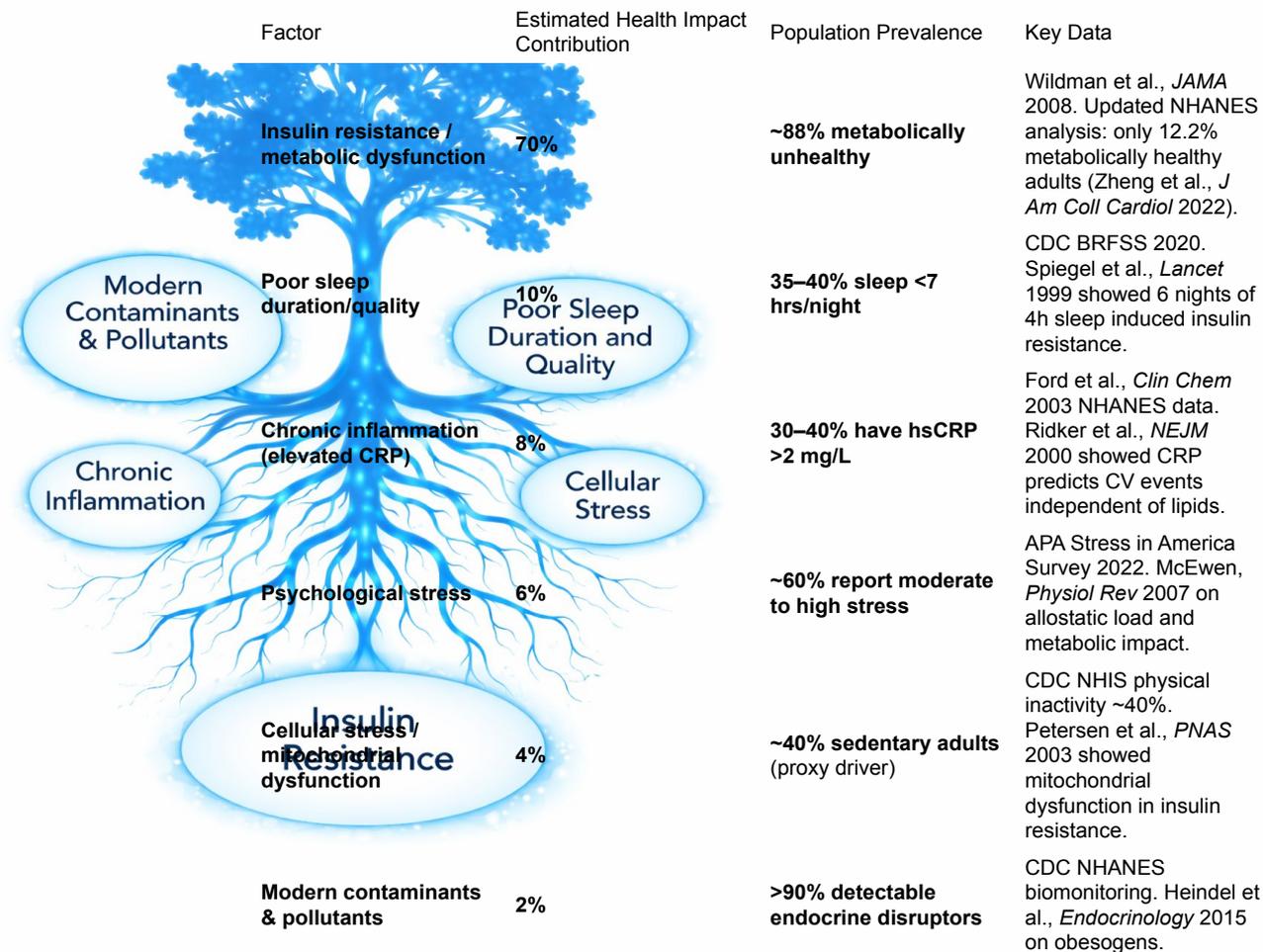
...fix the cause, not the symptoms!

KEY:

- \$ - less than \$500 per year
- \$\$ - \$500-\$2,000 per year
- \$\$\$ - \$2,000-\$15,000 per year
- \$\$\$\$ - \$15,000+ per year



What if chronic disease has a simple explanation...



To understand Metabolic & Mitochondrial Disease you need to understand Insulin



Insulin



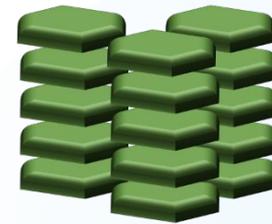
This is a **carbohydrate-rich** food choice.



Insulin



Food Choice

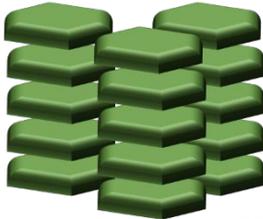
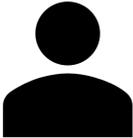


Blood Sugar

Carbohydrates are digested into **blood sugar** in the stomach.



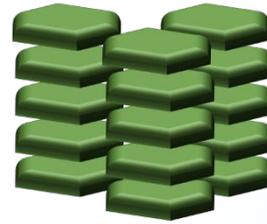
Insulin



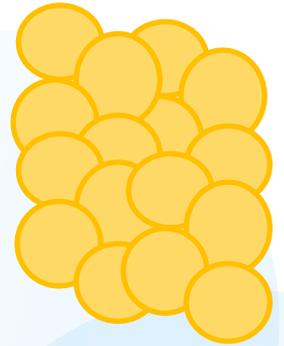
Insulin



Insulin



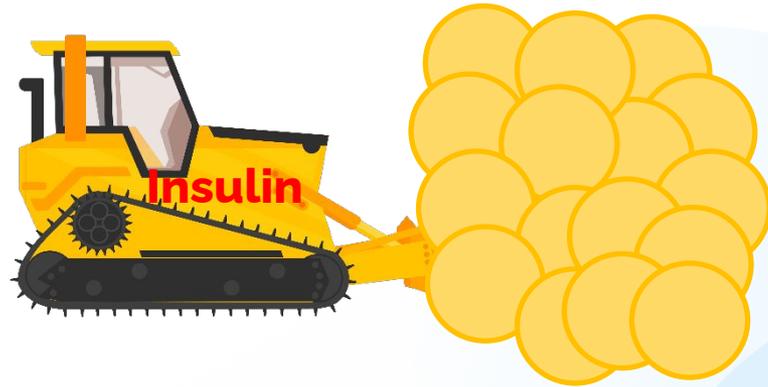
Blood Sugar



Fat



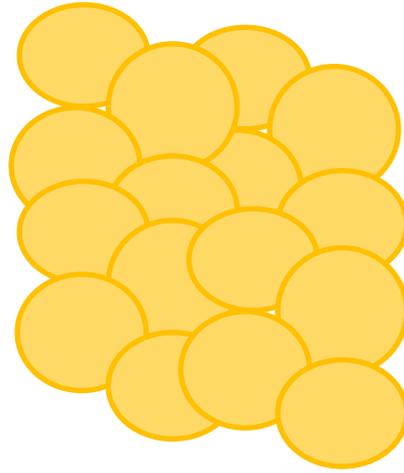
Insulin



Insulin drives blood sugar into **fat cells**.



Insulin



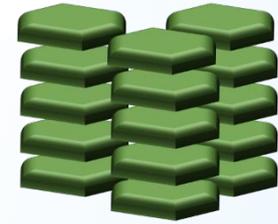
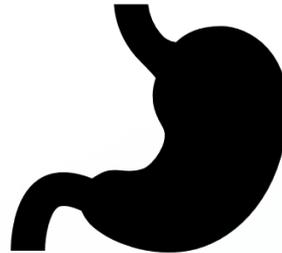
Carbohydrates are turned into **blood sugar**.
Blood sugar increases **insulin**.
Insulin turns blood sugar into **fat**.



Insulin Resistance



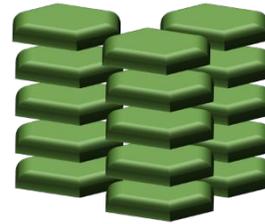
Food Choice



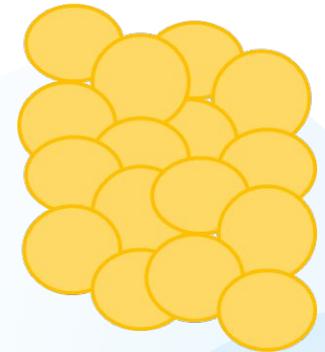
Blood Sugar



Insulin Resistance



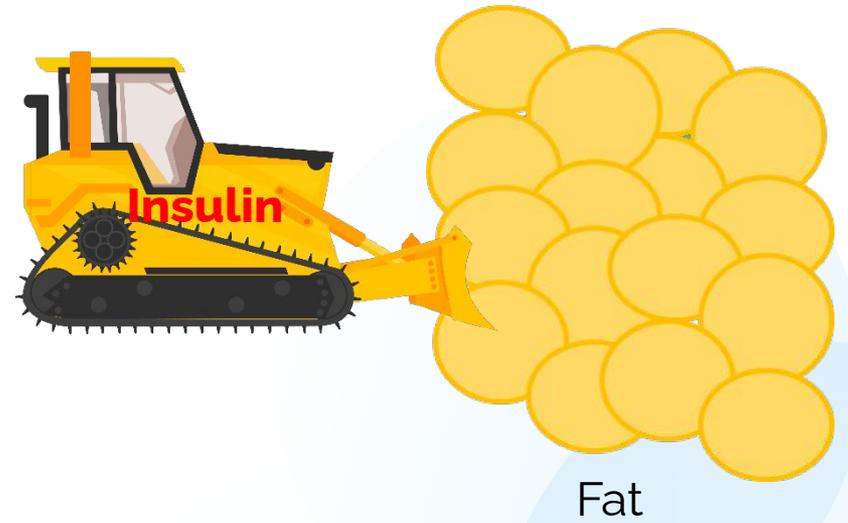
Blood Sugar



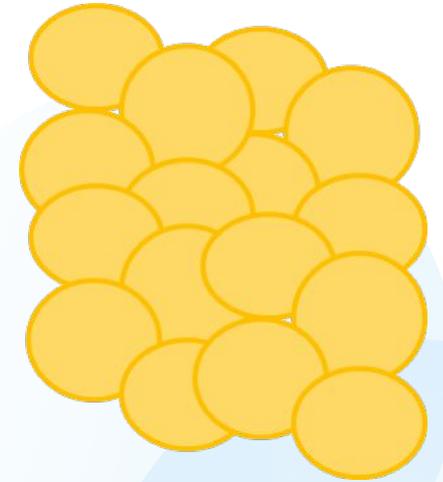
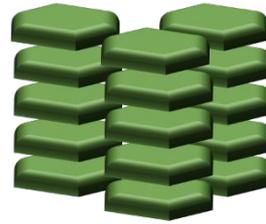
Fat



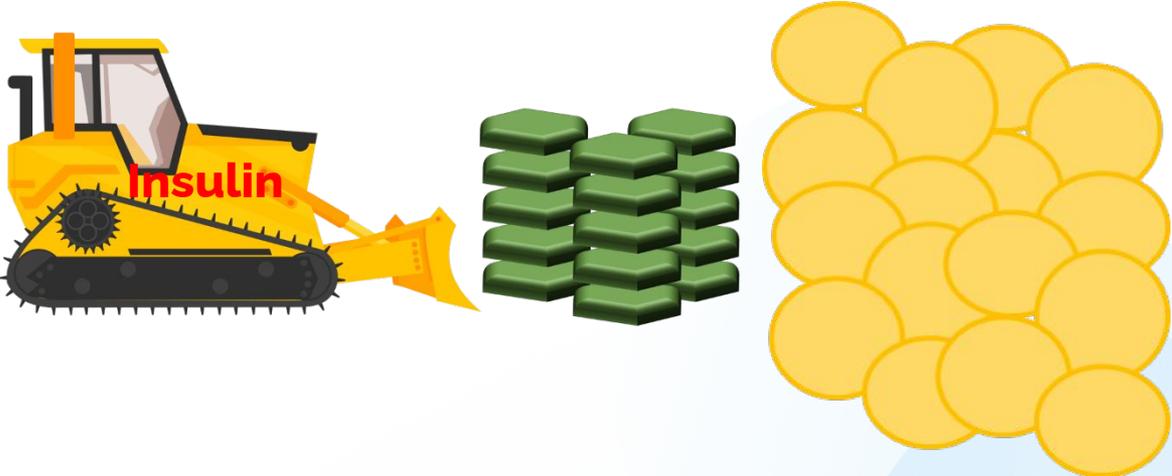
Insulin Resistance



Insulin Resistance



Insulin Resistance



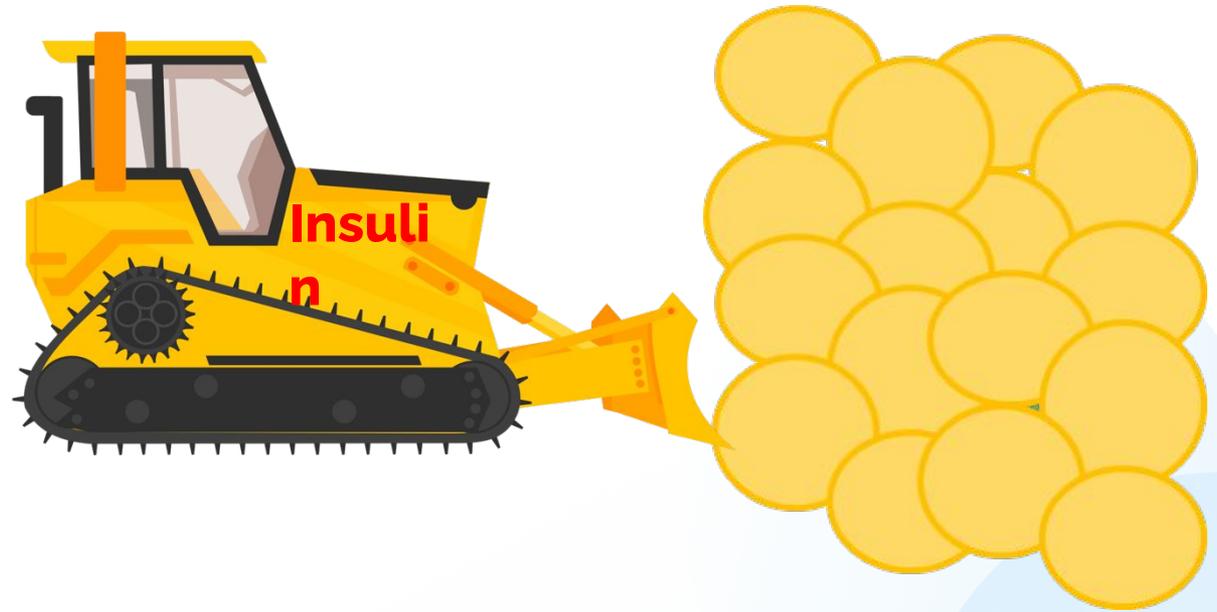
Insulin Resistance



More insulin is needed to drive the same amount of **blood sugar** into the **fat**.



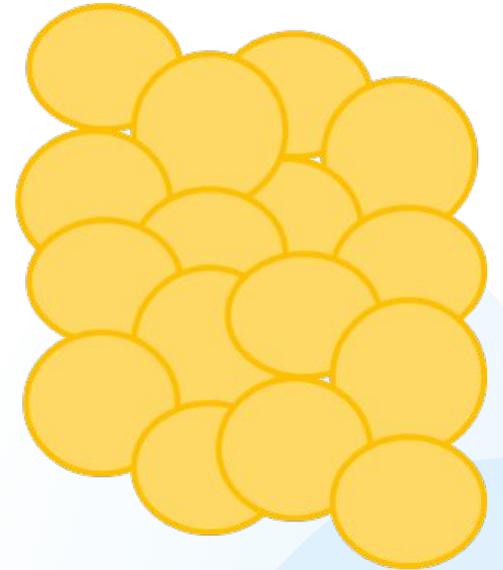
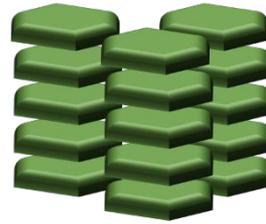
Insulin Resistance



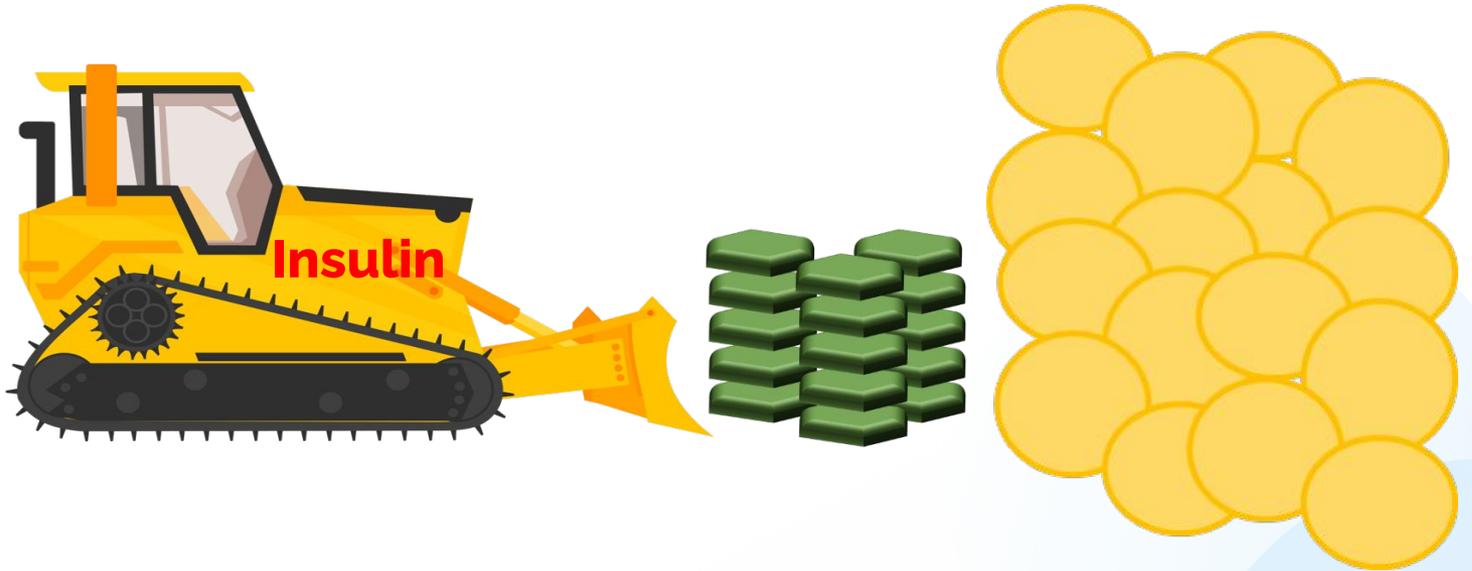
The body is now **insulin resistant**. Much more **insulin** is required to drive blood sugar into overstuffed **fat cells**.



Insulin Resistance



Insulin Resistance



Insulin Resistance



Insulin resistance turns into **Type 2 diabetes** when insulin can no longer force blood sugar into the fat cells. Blood sugar levels remain elevated.



Lets understand this in the real world now...



Food Choice





Food Choice



Steak doesn't affect blood sugar



Food Choice



Blood Sugar



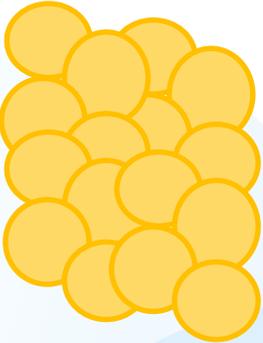
Insulin Resistance resolving when blood sugar stable and insulin low



Insulin



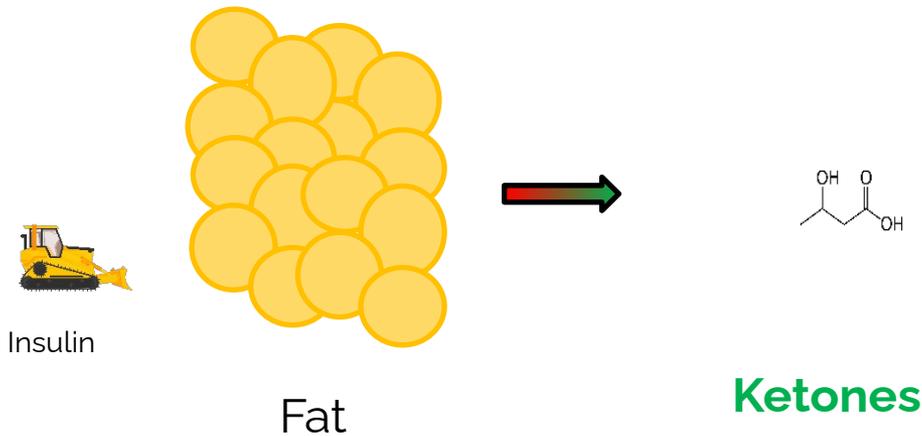
Blood sugar is stable



Fat



Insulin Resistance resolving when blood sugar stable and insulin low



When **insulin** is low, the body turns its fat stores into **ketones**. Ketones are a fuel source for the body.

Instead of **storing fat**, you are **burning it**.



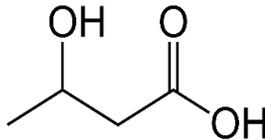
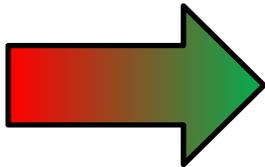
Insulin Resistance resolving when blood sugar stable and insulin low



Insulin



Fat



Ketones

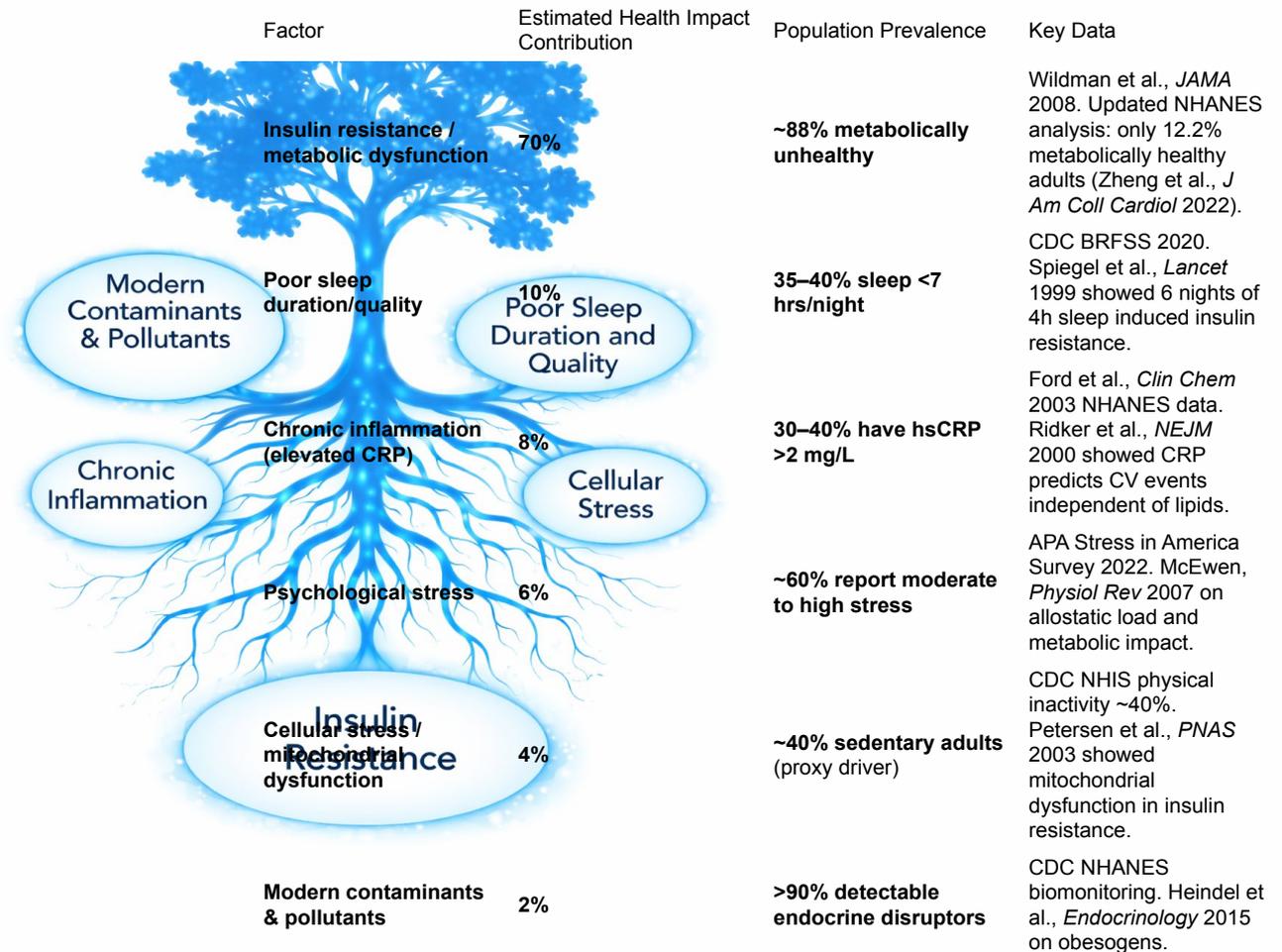
Ketones lower inflammation!

When **insulin** is low, the body turns its fat stores into **ketones**. Ketones are a fuel source for the body.

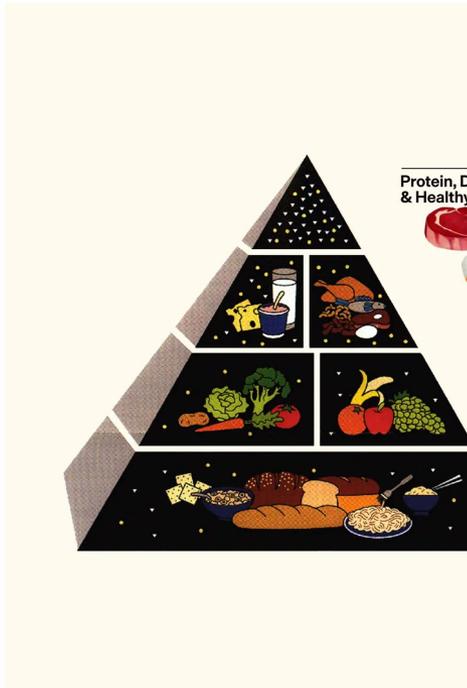
Instead of **storing fat**, you are **burning it**.



Chronic disease HAS a simple explanation...



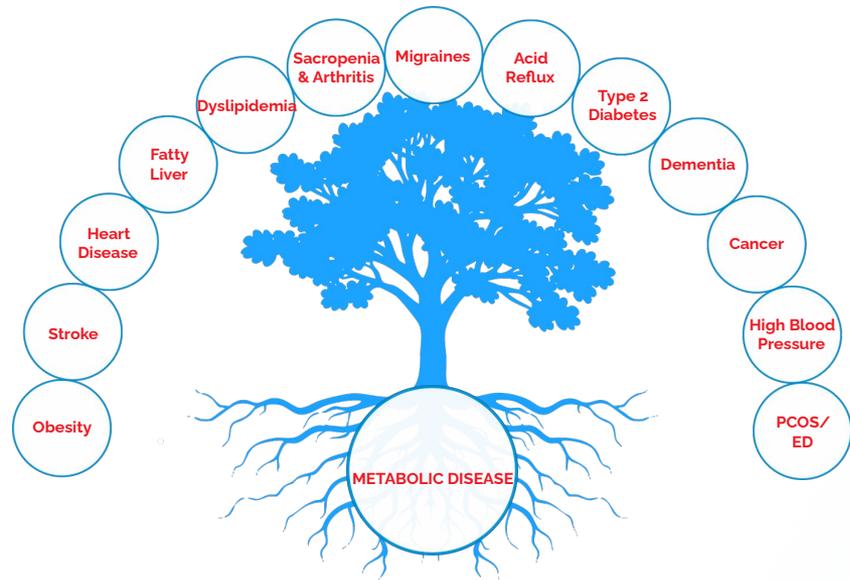
We must start with nutrition...



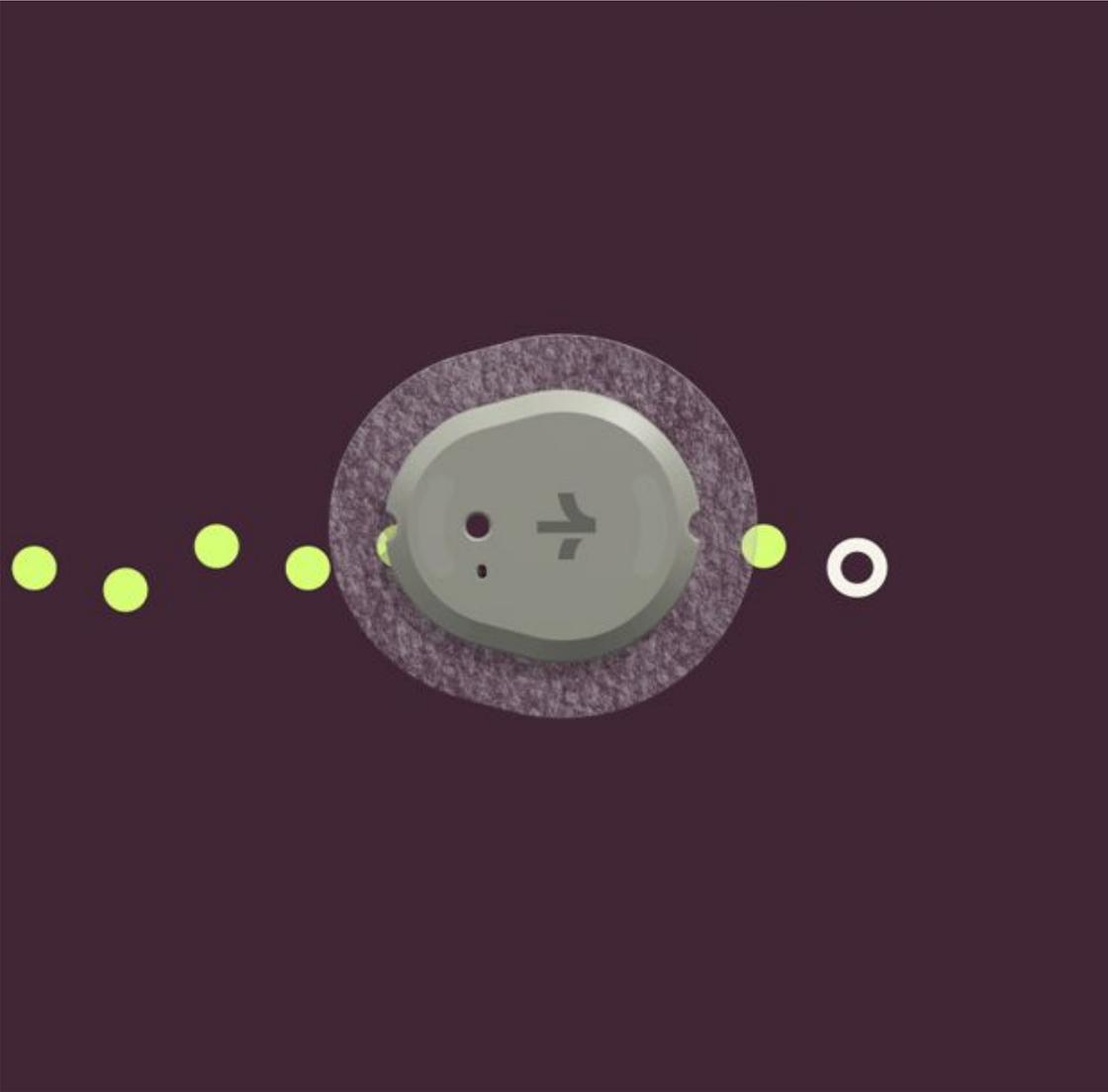
My meals look like this...



Can we create a unique Win-Win Scenario on a population level?



Can we create a unique Win-Win Scenario on a population level?



What is a CGM?



The Old Paradigm

Food Choice

Time to Feedback



Weeks to Months



The New Paradigm

Food Choice

Time to Feedback



Immediate

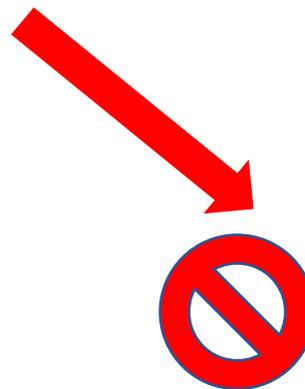
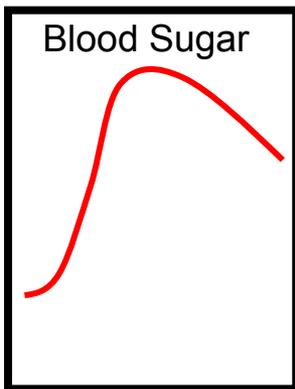


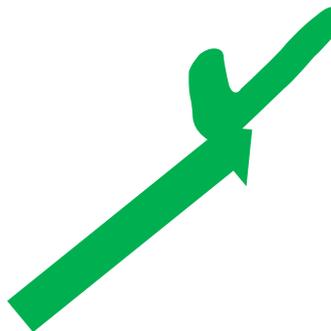
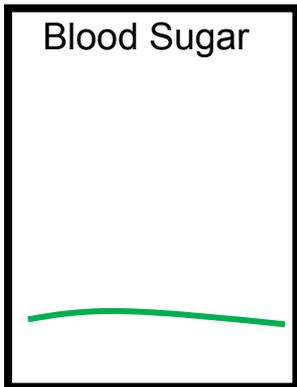
Informed Food Choices

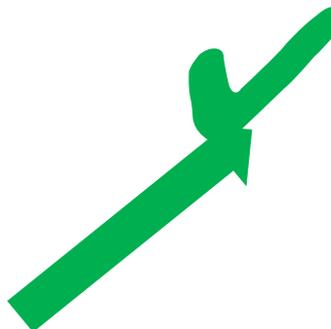
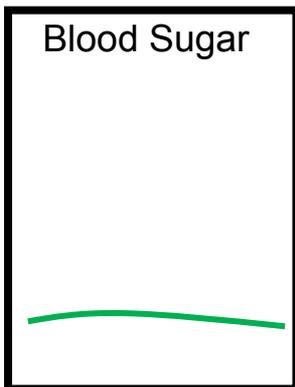


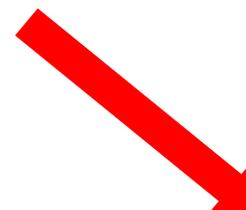
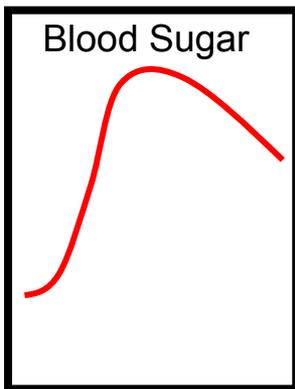


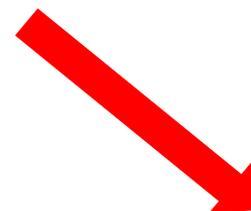
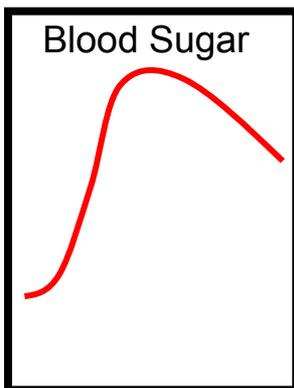




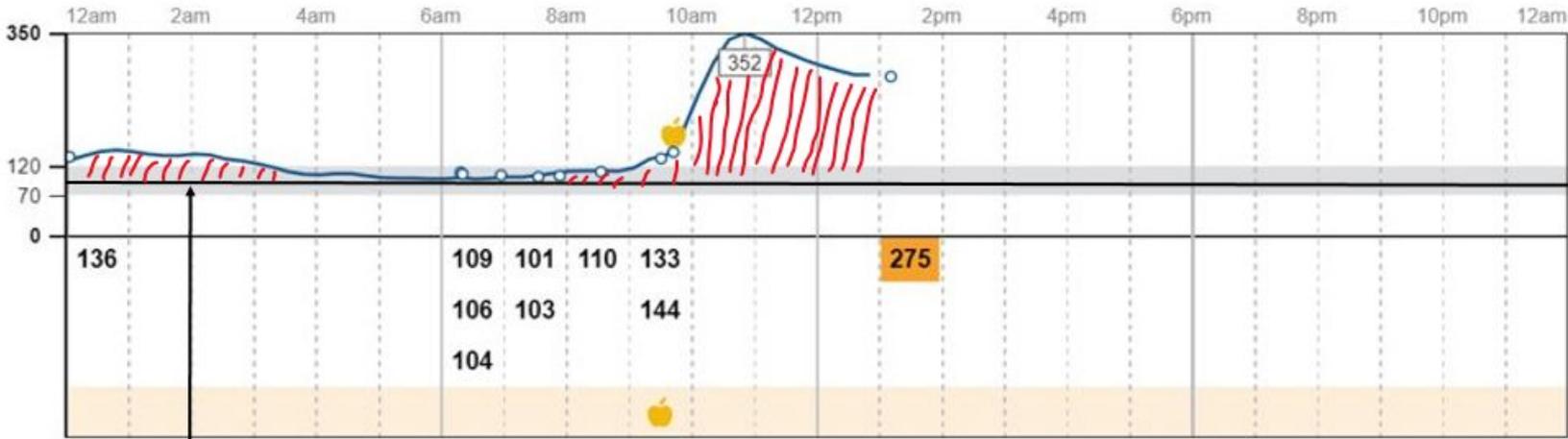








Real Response to Being Informed



HbA1c 4.8% =
Avg glucose 91 mg/dl

▶ Eating some breakfast milk, fruit mango banana & peanut butter



Informed Patient = Empowered Patient

- “Most beneficial as it ensures far more frequent glucose tests than finger sticks.”
- “When the numbers were high, I liked doing what it took to drive them down”
- “Makes me more mindful of what I eat”
- “It helps to regain control of unhealthy eating habits”
- “Extremely helpful in food choices and amounts”
- “Increased vigilance about food and drink intake”



Published Medical Weight Loss Program Results: High-Risk Population

RESULTS OF A METABOLIC WELLNESS PROGRAM

A partnership with a medical clinic, a corporation and employees with obesity, prediabetes or diabetes who voluntarily participated in treatment using carbohydrate-restriction.

52.9 years
Mean Age

290.5 lbs
Mean weight

44.9 kg/m²
Mean BMI

56%
Female

Metabolic Results

At 6-months into this ongoing program...

↓
38 lbs

Avg Weight Loss
*All participants lost at least 15lbs

↓
1.1%

a1C

↓
44%

American College of Cardiology / American Heart Association
10-Year ASCVD Risk

↓
17 mmHg

Systolic Blood Pressure

- Low carbohydrate diet (<30g/day)
- Ongoing Support
- Education
- Continuous Glucose Monitor
- Smartphone App

Corporate Savings

\$4,000 per year/patient From Medication Deprescription

Medications Eliminated

Cholesterol: 

Insulin: 

Reflux: 

Blood Pressure: 

Diabetes: 

This high-risk cohort (nearly 2/3 of patients had diabetes) had an average starting HbA1c of 7.1%:

**Deprescription cost savings:
\$4,000 per patient, per year**



Published Medical Weight Loss Program Results: Low-Risk Population

12-Month Weight Loss & Deprescription Savings with the TOWARD Approach



ORGANIZATIONAL

50

EMPLOYEES



INDIVIDUAL

43^{lbs}

AVG. WEIGHT LOSS
PER PERSON

96

total
DEPRESCRIBED
MEDICATIONS



1.92

DEPRESCRIBED
MEDICATIONS
PER PERSON

TOTAL ANNUALIZED
COST SAVINGS

\$83,285

\$1665

ANNUALIZED SAVINGS
PER PERSON

This lower risk cohort (with only 1/3 of patients having diabetes) had an average starting HbA1c of 6.2%.

**Deprescription cost savings:
\$1,665 per patient, per year**



Cost-savings In Both High And Lower Risk Cohorts

Study	A1c	Weight	BP (mmHG)	Deprescriptions
Toward Health*	↓ 7.1% to 6.0% (-1.1%)	↓ 288 lbs to 251 lbs (-38 lbs)	↓ 141/83 to 124/78 (-17/6)	Saved \$4,000 per patient, per year in medication deprescriptions
Toward Health**	↓ 6.34% to 5.5% (-.79%)	↓ 271 lbs to 228 lbs (-43 lbs)	↓ 144/87 to 126/80 (-14/7)	Saved \$1,665 per patient, per year in medication deprescriptions

The effectiveness of our approach demonstrates a unique win-win result: **significant health improvements** and **concrete returns** for **both individuals** and **organizations**.

In addition to immediate savings on deprescribed medications, the TOWARD Approach provided a **44% reduction in the employees' 10-year risk of heart attack and stroke**, along with a happier, healthier and more productive team!



**Gain back years
of quality life!**



Before



After

**Reversing metabolic conditions like
type-2 diabetes, obesity, fatty liver,
and high cholesterol is possible.**





Contact

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