Dr. Shuck

Food is Medicine

DR. WHO?

Struggling with Chronic Pain or Stubborn Weight?

Losing the Weight and Ditching the Pain is Easier than You Think
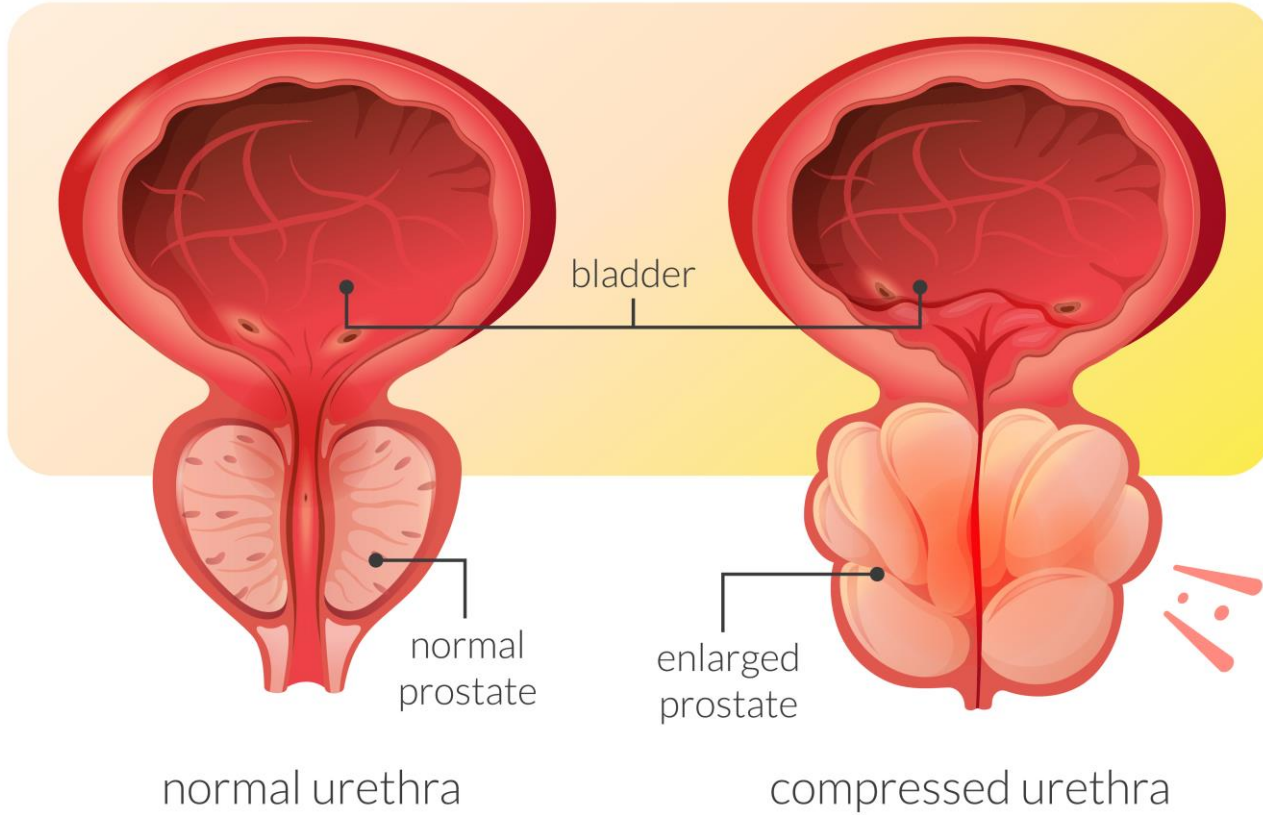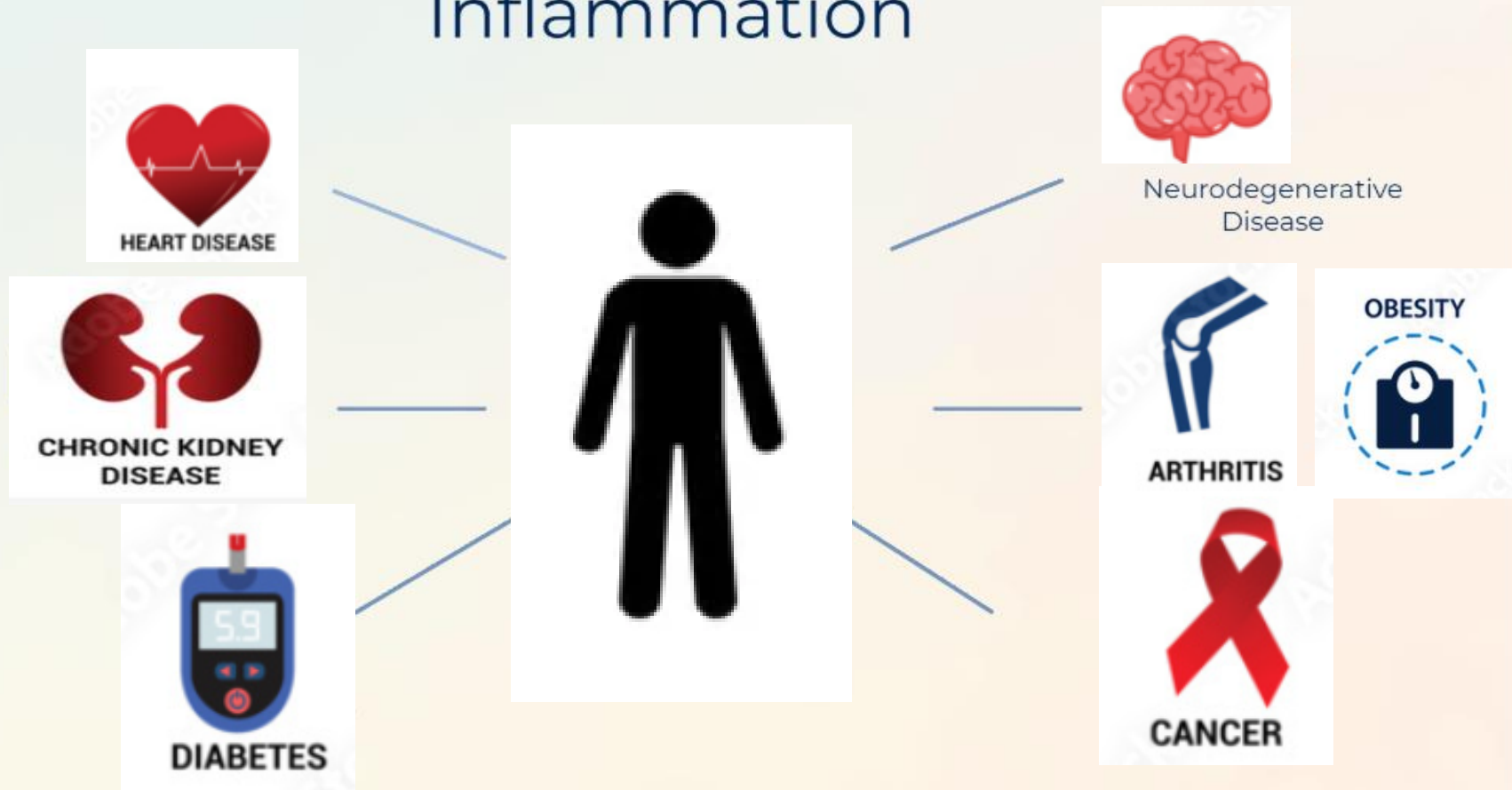
I HAVE TWO GOALS
1) TO LOSE THE WEIGHT FROM THE ACCIDENT

2) TO QUIT CALLING LAST
YEAR'S JUNK FOOD BINGE "THE ACCIDENT"

- Osteoarthritis
- Prostatitis
- Colitis
- Dermatitis
- Nephritis

bladder

normal prostate

enlarged prostate

normal urethra

compressed urethra

Impacts of Systemic Inflammation

Food is the Foundation and the Frame

HEALING

Blood Sugar
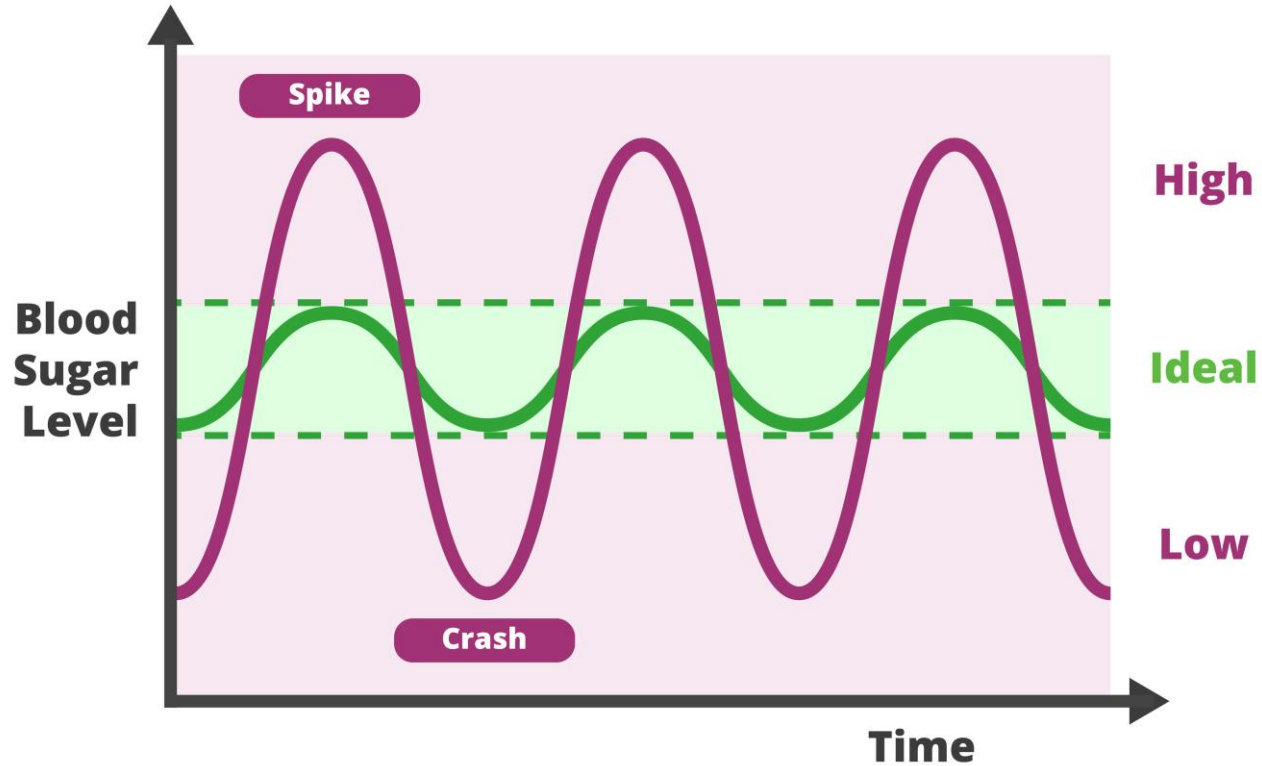

Blood Sugar Level

Spike

Crash

High

Ideal

Low

Time

What is Blood Sugar?

9 Grams Net Carbohydrates =

39 Grams Net Carbohydrates =

Risk Factors for Blood Sugar Issues

- Sedentary Lifestyle
- Constant High or Poorly Managed Stress Levels
- A diet *low* in fat and low in protein
- A diet high in carbohydrates
- Alcohol intake
- Nutrient Deficiencies/Adrenal Issues

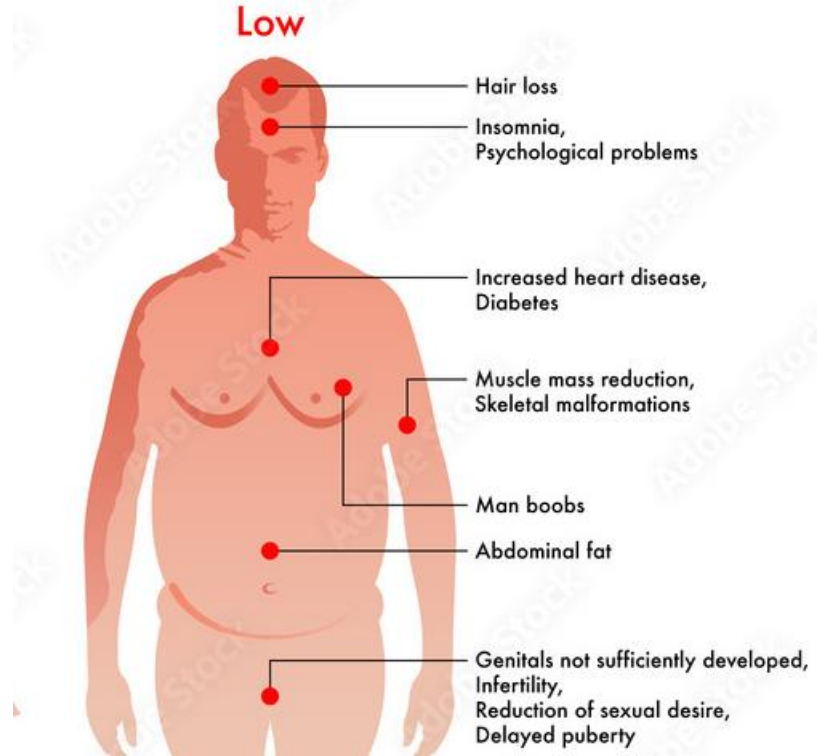What are some signs of blood sugar issues?

Early Signs:

- Cravings for sweets between meals
- Dependency on coffee for energy
- Fatigue- eating makes this lessen
- Getting "Hangry"
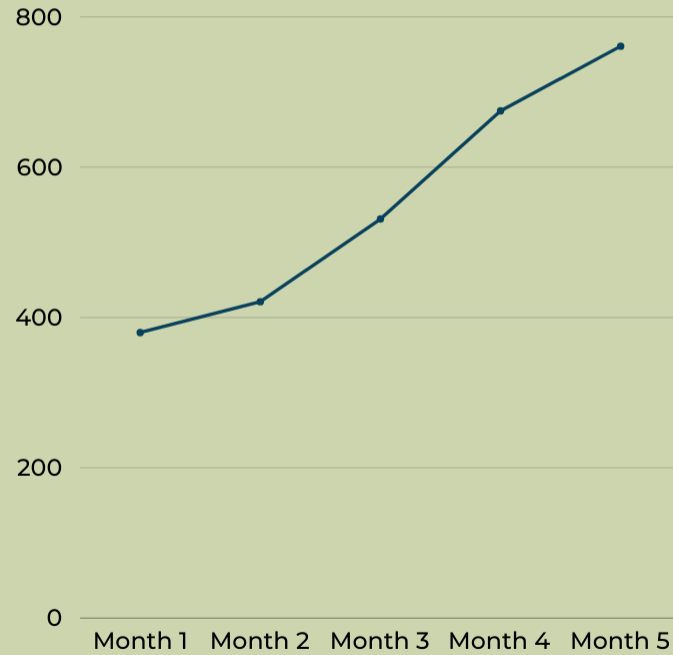- Moodiness/Anxiety
- Reactive hypoglycemia

Men Specific Symptoms

- Can't stay awake during the day

- Insomnia

- Erectile Dysfunction

- UTIs

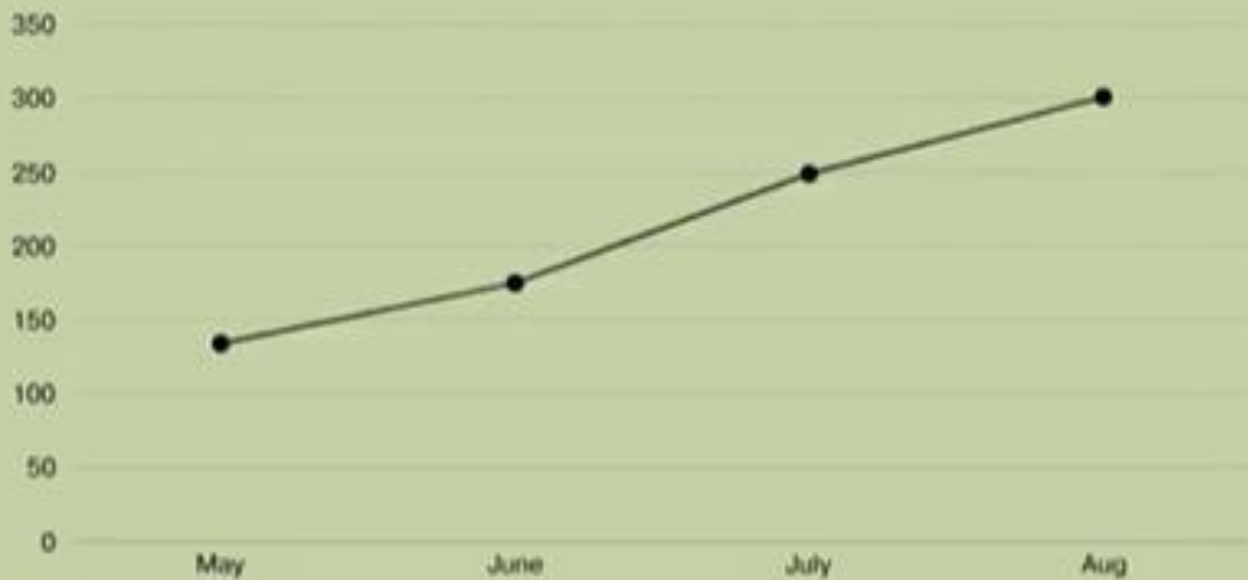- Reduced Muscle Mass

- Low Testosterone

Low

Hair loss

Insomnia, Psychological problems

Increased heart disease, Diabetes

Muscle mass reduction, Skeletal malformations

Man boobs

Abdominal fat

Genitals not sufficiently developed, Infertility, Reduction of sexual desire, Delayed puberty

Testosterone Level
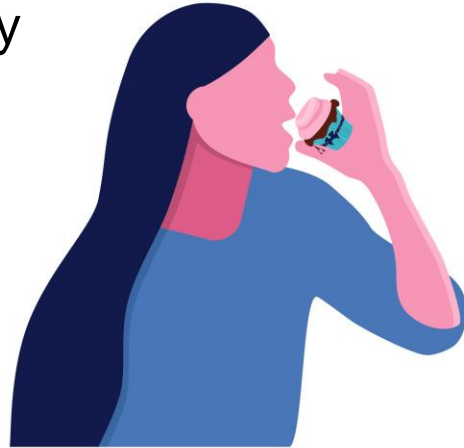
Male 65 Years Old

Testosterone
Male Age 62

Women Specific Symptoms

- Yeast Infections
- Urinary Tract Infections
- Lack of Energy
- Brain Fog
- Low Mood
- PCOS

What are some signs of blood sugar issues?

Later Signs:

- Waist circumference
- Fatty Liver
- High HbA1c
- Inflammation

FATTY LIVER

FUNCTIONAL LABS VS. "NORMAL" LAB RANGES

Ultrasound? Invasive biopsy?

Nah.

Let's use the TyG Index Calculator

Fasting Glucose 80 (Reference range 74-100 mg/dL)

Fasting Triglycerides 130 (Reference range anything under 150 mg/dL)

Everything looks healthy and good, right?

Healthy Liver

Fatty Liver

FATTY LIVER

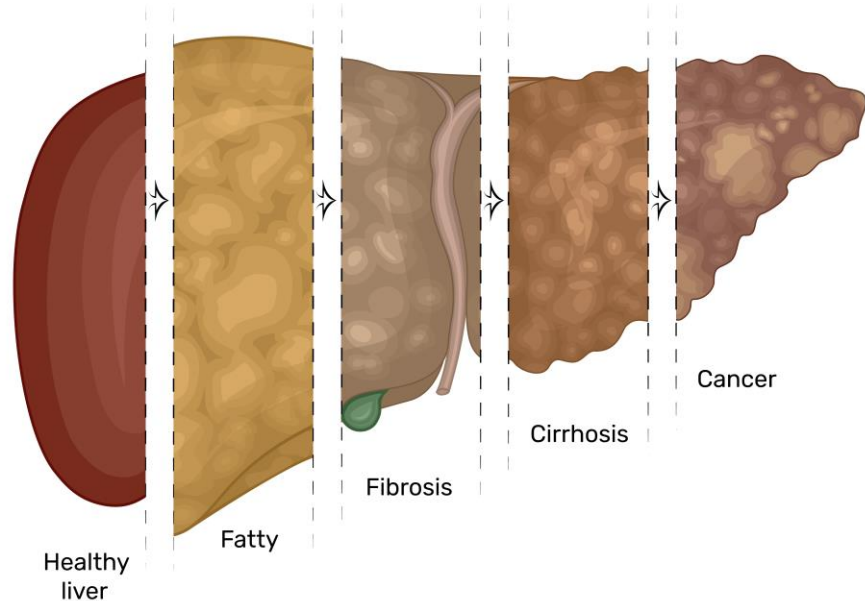Plug those two numbers into the TyG Index Calculator and get
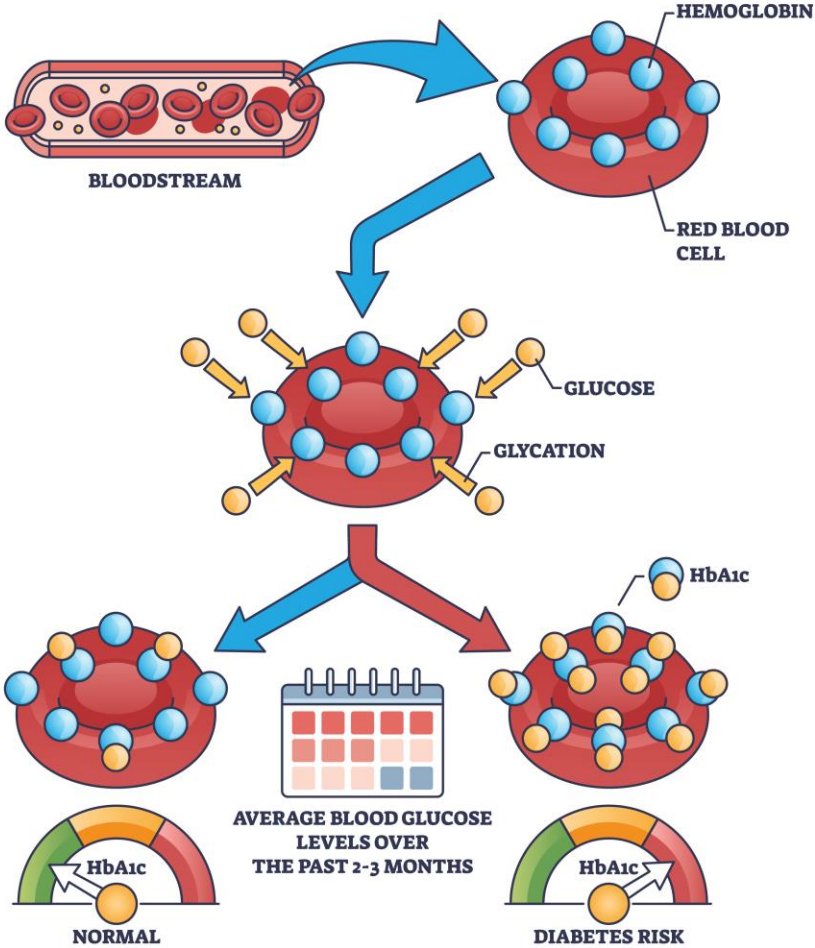
TyG Index #= 4.62

Anything over 4.49

= High likelihood of fatty liver

= Insulin resistance

Stages of liver damage

Healthy liver

Fatty

Fibrosis

Cirrhosis

Cancer

HEMOGLOBIN A1C

BLOODSTREAM

HEMOGLOBIN

RED BLOOD CELL

GLUCOSE

GLYCATION

HbA1c

AVERAGE BLOOD GLUCOSE LEVELS OVER THE PAST 2-3 MONTHS

HbA1c

NORMAL

HbA1c

DIABETES RISK

HEMOGLOBIN A1C

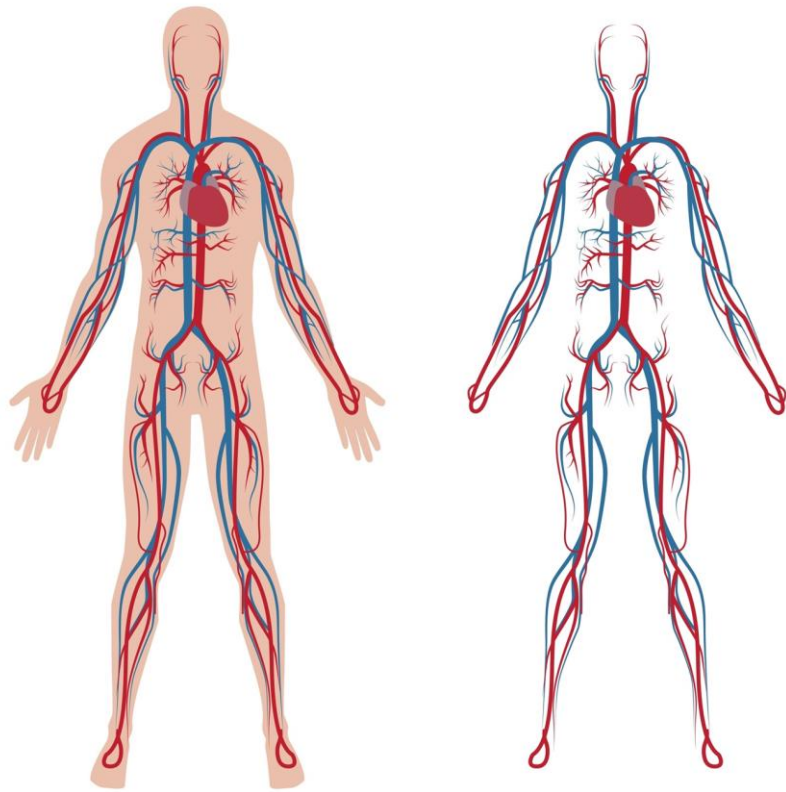Functional numbers versus "normal" reference ranges

"Normal" Ranges:

5.7%= Prediabetic

6.5% and above= Diabetic

Functional, ie, Healthy Ranges

5.3% and below healthy range
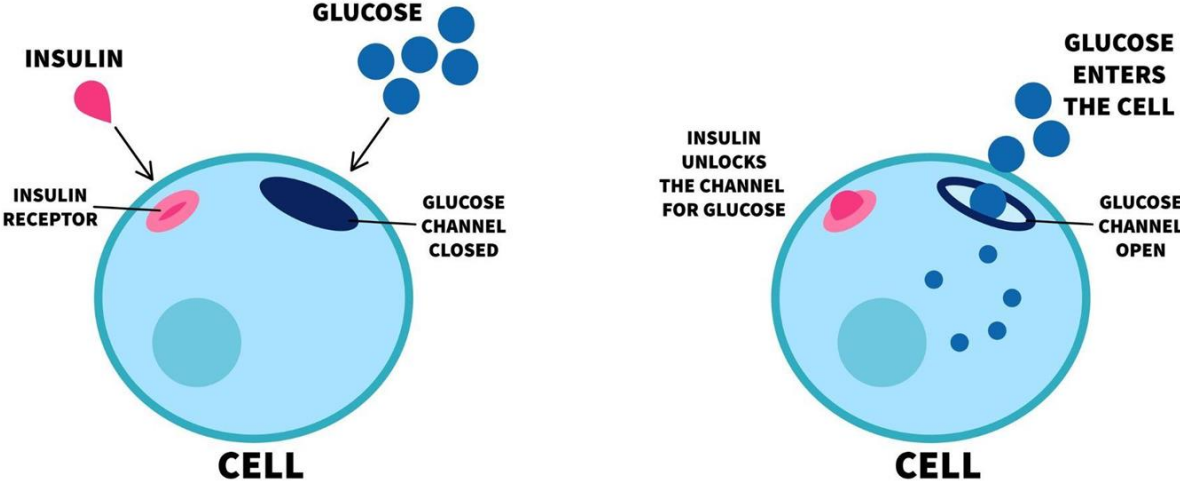
5.4% and above, too much sugar in the blood
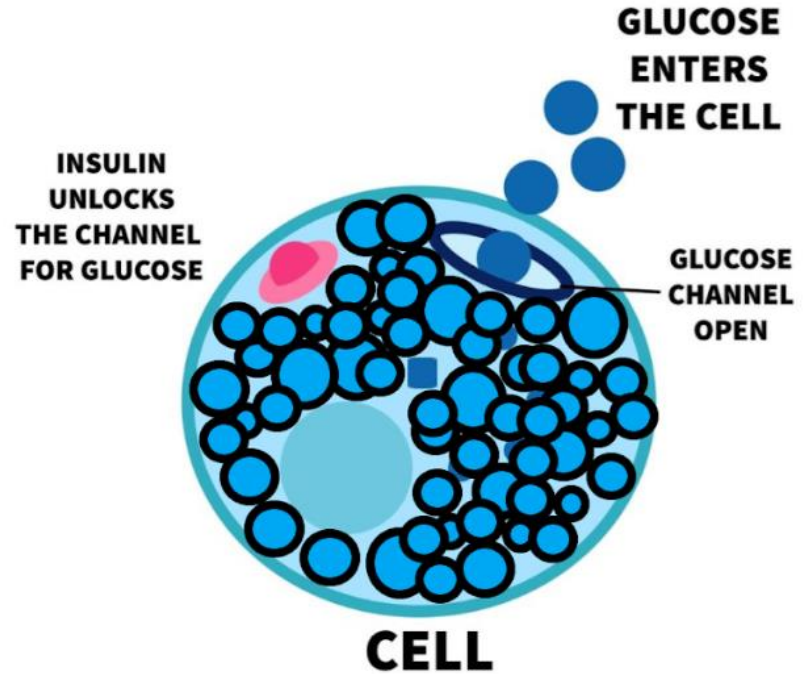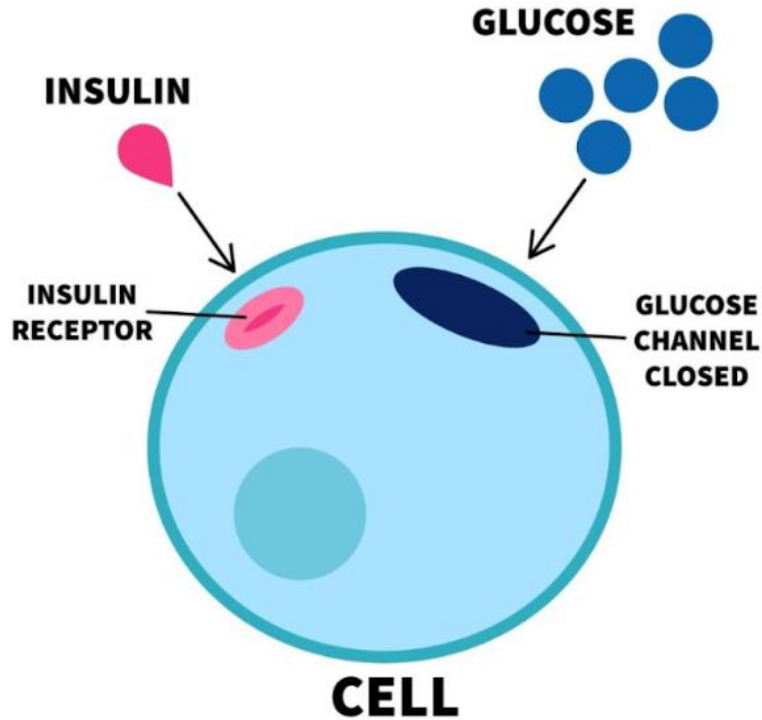
CIRCULATORY SYSTEM

Super Highway

INSULIN AND BLOOD GLUCOSE

Insulin puts sugar (glucose) into the cells.

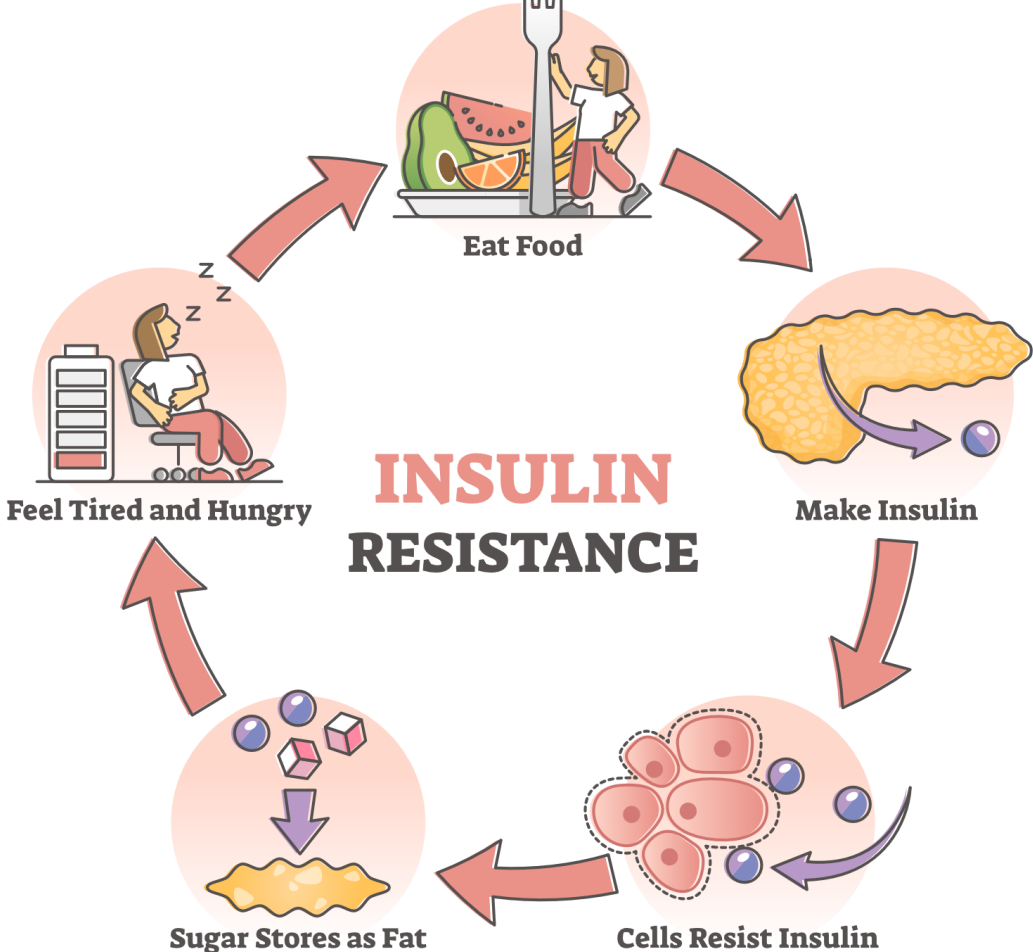## HOW DOES INSULIN WORK?

GLUCOSE

INSULIN

INSULIN
RECEPTOR

GLUCOSE
CHANNEL
CLOSED

CELL

GLUCOSE
ENTERS
THE CELL

INSULIN
UNLOCKS
THE CHANNEL
FOR GLUCOSE

GLUCOSE
CHANNEL
OPEN

CELL

HOW DOES INSULIN WORK?

GLUCOSE

INSULIN

INSULIN RECEPTOR

GLUCOSE CHANNEL CLOSED

CELL

INSULIN UNLOCKS THE CHANNEL FOR GLUCOSE

GLUCOSE ENTERS THE CELL

GLUCOSE CHANNEL OPEN

CELL

INFLAMMATION

20 car pile-up

WEIGHT GAIN-WEIGHT LOSS RESISTANCE

Eat Food

Make Insulin

INSULIN
RESISTANCE

Feel Tired and Hungry

Sugar Stores as Fat

Cells Resist Insulin

Carbohydrates/Glucose/Sugar/Fiber

Fiber IS a carbohydrate - Body can't break it down on a level to where it enters the bloodstream, so fiber does not raise blood sugar.

We can subtract it out of our carb count on our foods

FAVORITE FOODS

Mangos 25 g carbohydrates 3 grams fiber = 22 g carbohydrates/glucose

Grapes 18 g carbohydrates 1 g fiber=17 g carbohydrates/glucoe

Banana 27 g carbohydrates 3 g fiber = 24 g carbohydrates

Pineapple 22 g carbohydrates 2 g fiber = 20 g carbohydrates/glucose

FAVORITE FOODS

Refined Grain Products

Pizza 36 g carbs 3 g fiber= 33 g net carbohydrates

Pasta (spaghetti noodles) Carbs 43 Fiber 3= 40 g net carbohydrates

Bagels 55 g carbs Fiber 2= 53 g net carbohydrates

Crackers 15 g carbs Fiber 2= 13 g net carbohydrates

White Bread 18 g Carbs 1 g fiber= 17 g net carbohydrates

Donut 29 g carbs 1 g fiber= 28 g net carbohydrates

Honorable mention: pancakes, waffles, ice cream
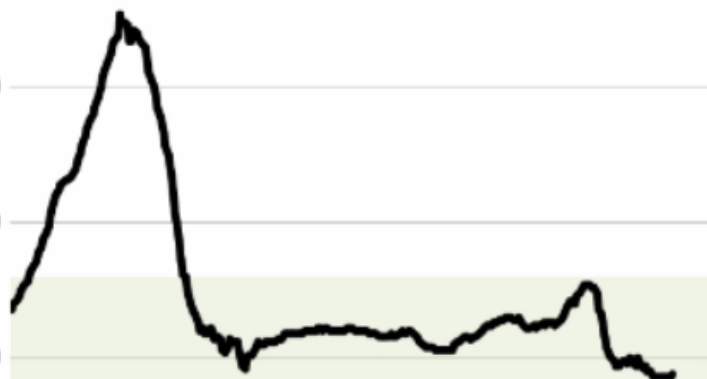
FAVORITE FOODS

Meat

0 carbs, 0 fiber

Vegetables

-Spinach 7g carbs, 4 g fiber

-Broccoli 6g carbs, 2 g fiber

-Zucchini 5g carbs, 2 g fiber

Nuts and Seeds

-Walnuts 1 g carb, .5 g fiber

FAVORITE FOODS

<u>Dairy</u>

-Skim milk 12 g carbs, 0 fiber

-1%- 12 g carbs, 0 fiber
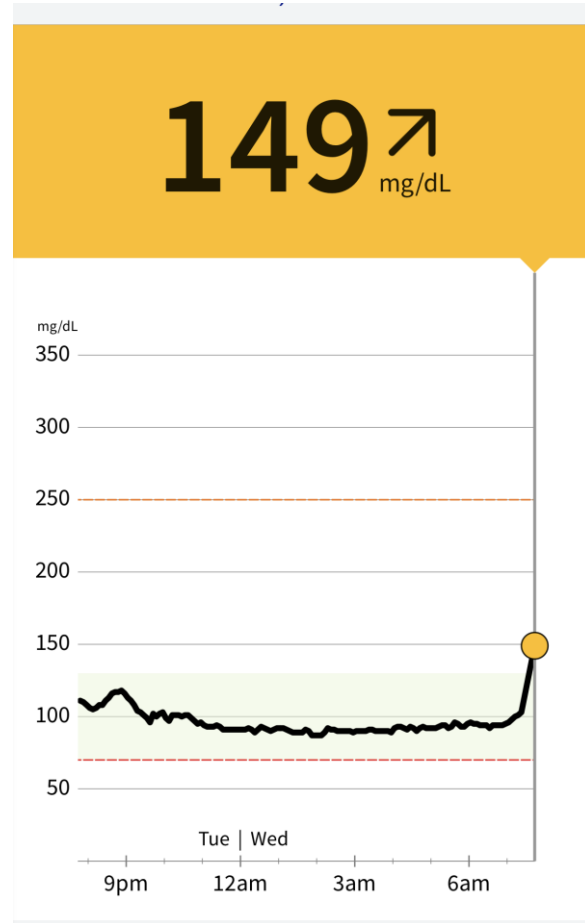
-2% 12 g carbs, 0 fiber

-Whole Milk 12 g carbs, 0 fiber

The difference is the fat content in the whole milk will help slow down a blood sugar spike. Protein and fat slow down blood sugar responses
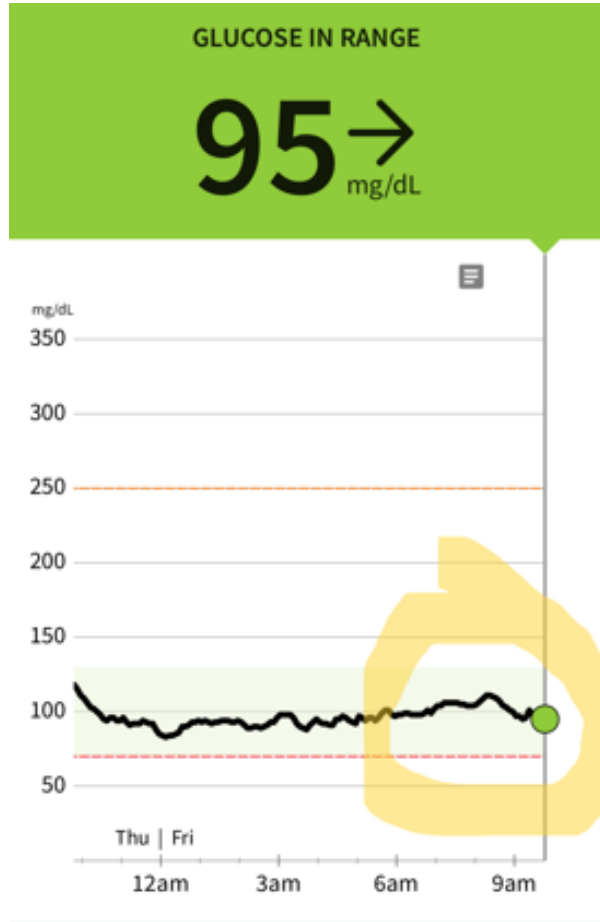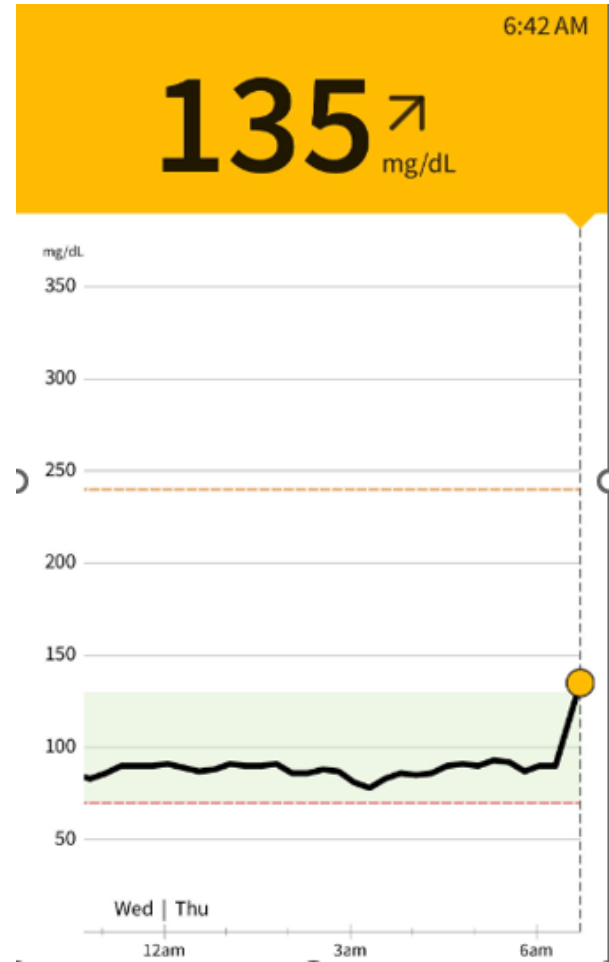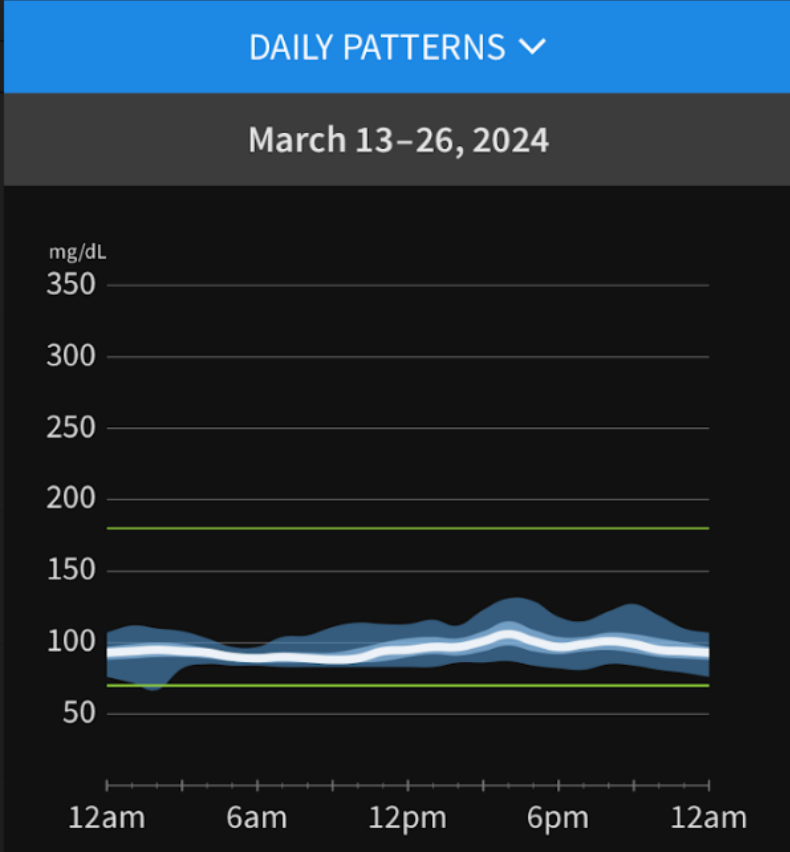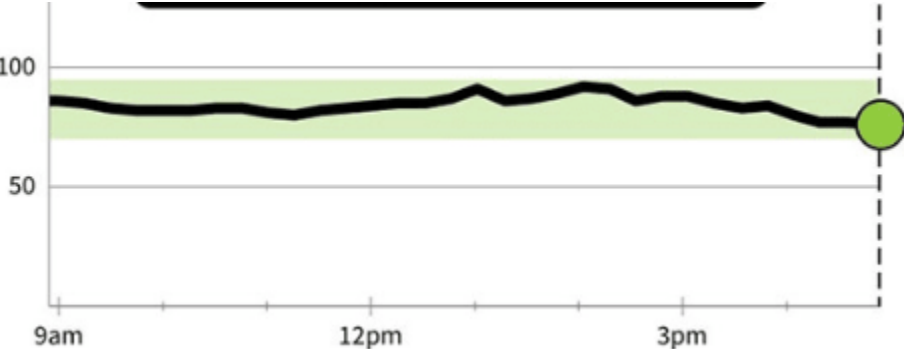
4 Ounces Raw Whole Milk
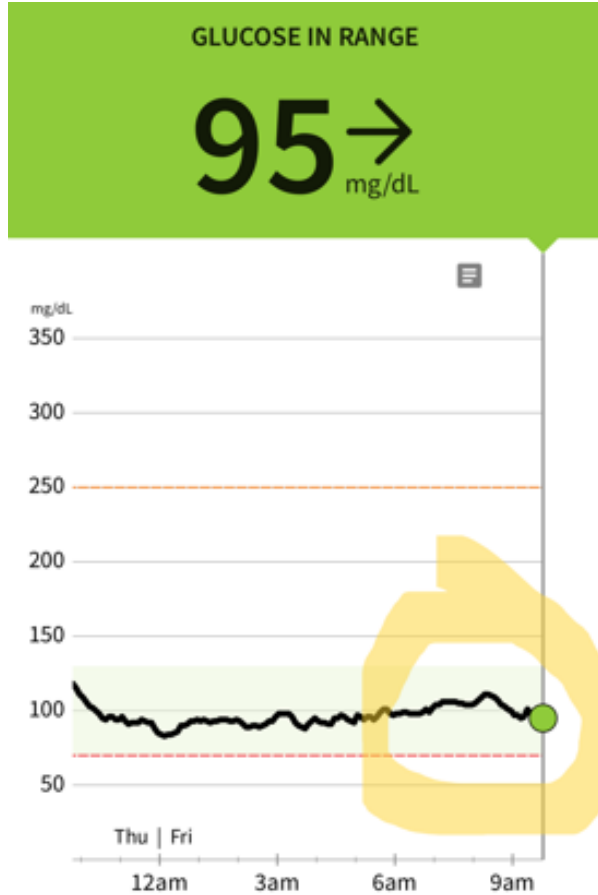
4 Ounces Skim Milk

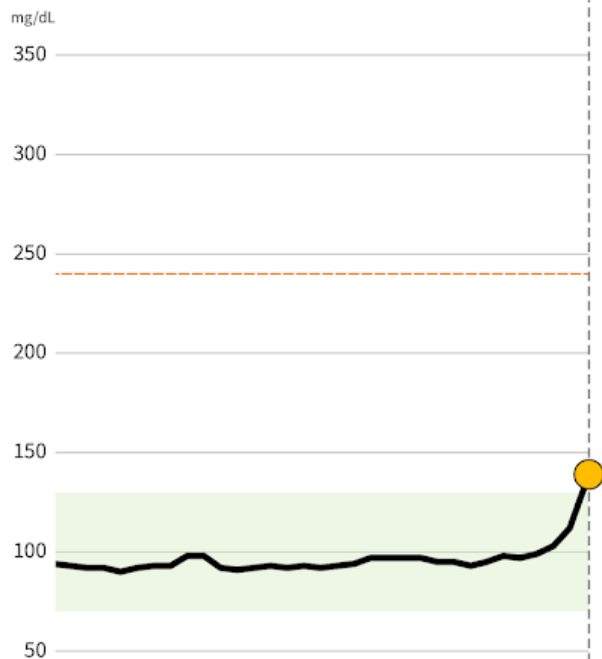# 4 Oz Raw Milk

4 Oz Pasteurized Whole Milk

Favorite Foods

Potato Cooked in Animal Fat vs Cooked in Vegetable Oil
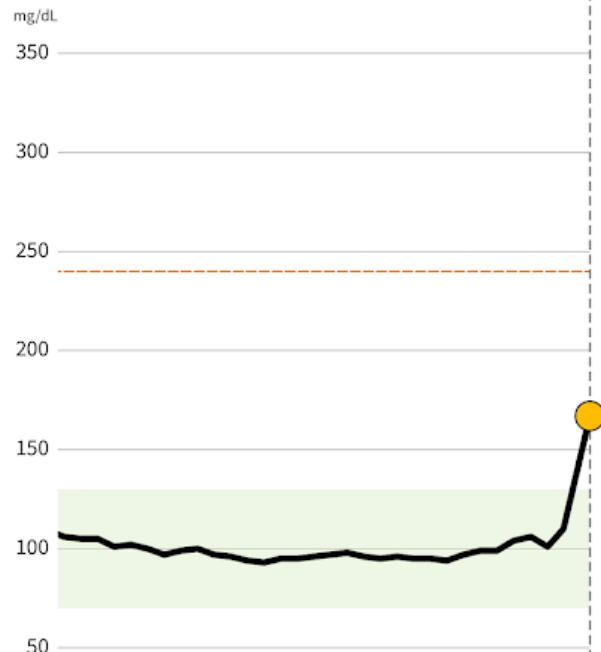
Whole Wheat — 10:11 AM — 140 mg/dL
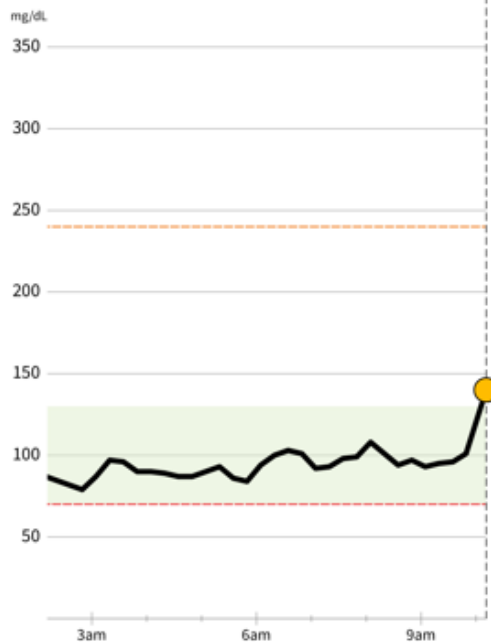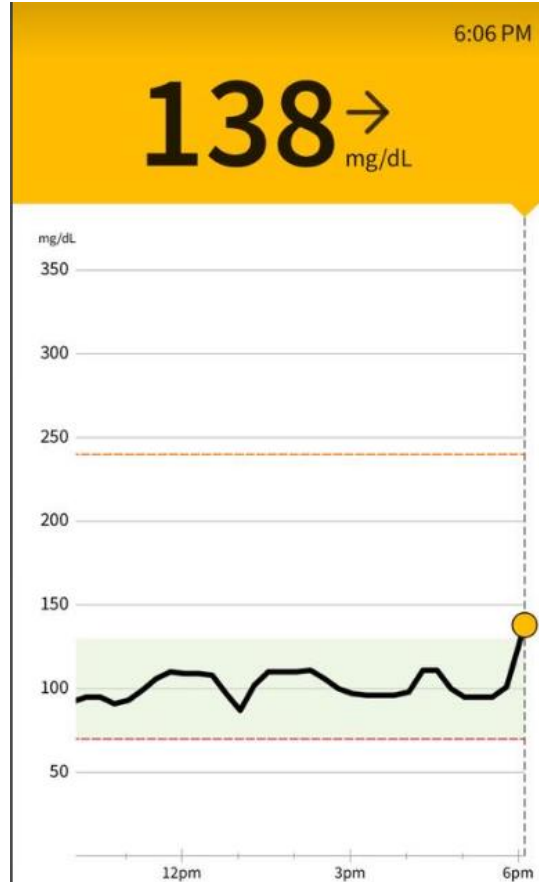
Sourdough Spelt — 8:42 AM — 162 mg/dL
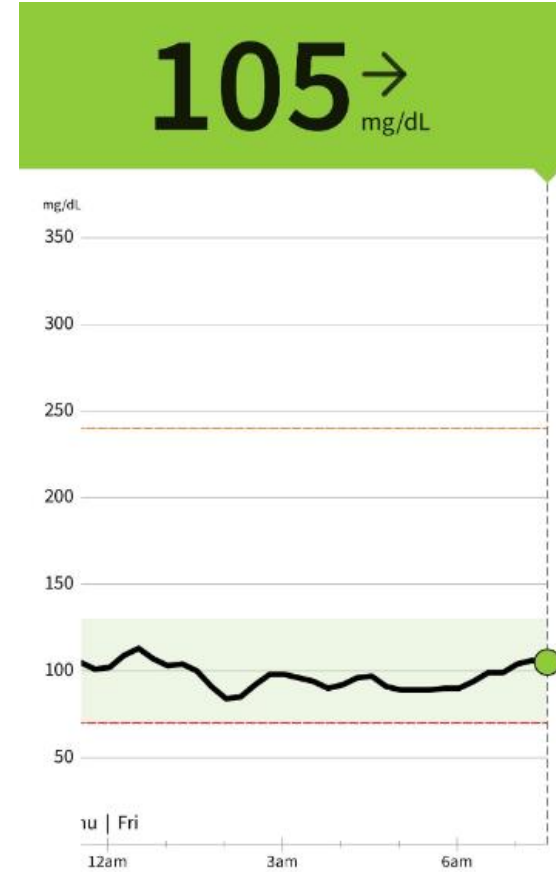
White Bread — 166 mg/dL
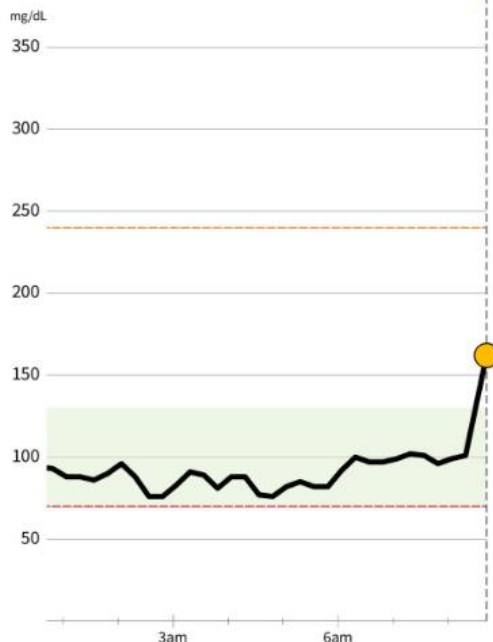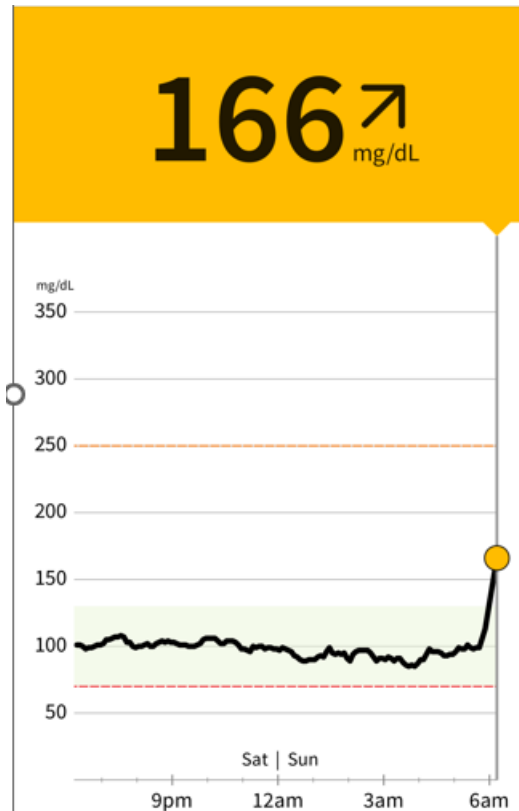
Whole Wheat Bread-Margarine
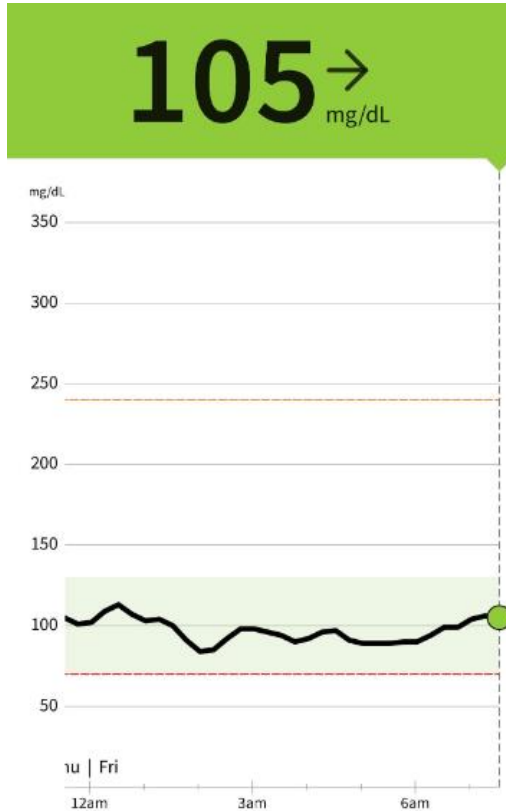
Whole Wheat Bread-Butter
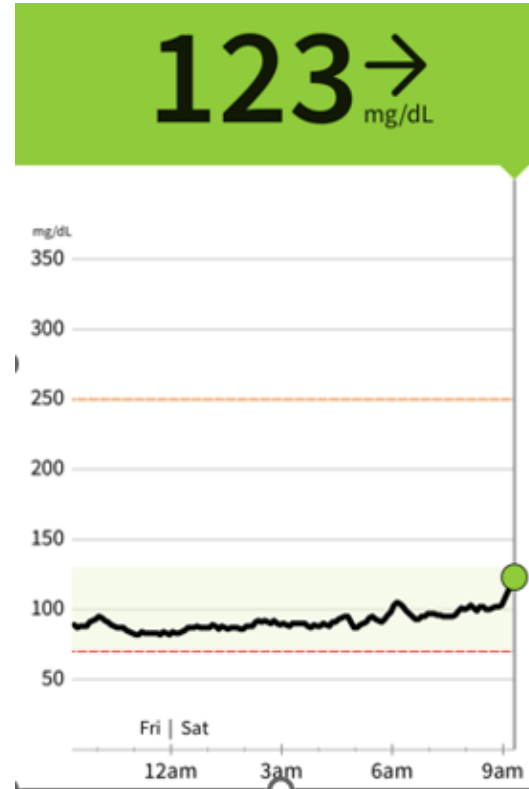
WITH BUTTER!

Whole Wheat Bread

White Bread

How do you know for sure what your superhighway looks like?

YOU NEED LABS!

TOOLS

DIET!!!

FOOD IS THE FOUNDATION AND THE FRAME FOR YOUR HOUSE OF HEALTH

Assess How You Eat

TOOLS

- Fermented Foods
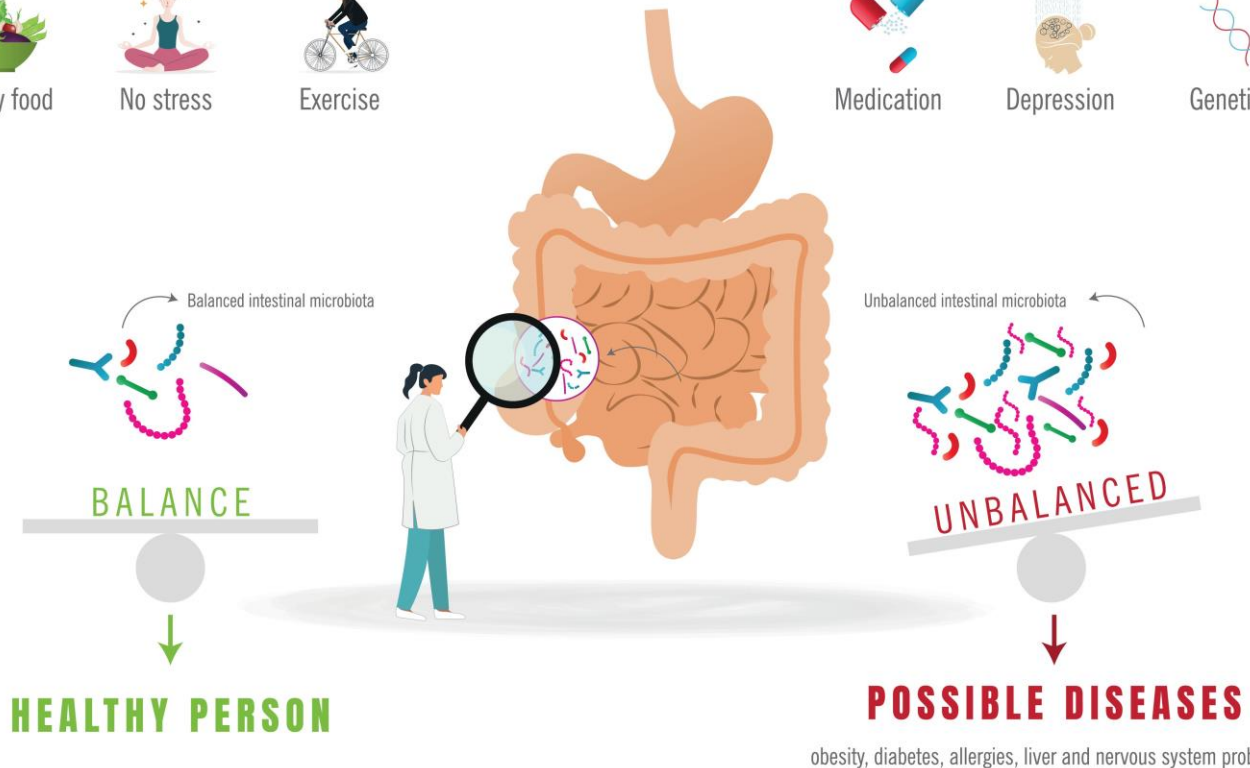- Healthy Fats
- Properly Prepared Plant Foods
- Good Quality Meats
- Balanced Meals

FERMENTED FOODS/HEALTHY GUT BACTERIA

Healthy food   No stress   Exercise

Medication   Depression   Genetics

Balanced intestinal microbiota

Unbalanced intestinal microbiota

BALANCE

UNBALANCED

HEALTHY PERSON

POSSIBLE DISEASES

obesity, diabetes, allergies, liver and nervous system problems.

TOOLS

HERBALS

- Insulin Plant
- Gymnema Sylvestre
- Fenugreek
- Barberry/Goldenseal (berberine)
- Amla
- Moringa
- Nopal (Prickly Pear)

TOOLS
AMLA and MORINGA

TOOLS
NOPAL (PRICKLY PEAR)

- Regular glucose meter
- Continuous Glucose Monitor
- Smart Watch (accuracy?)

Steps to Ditching Chronic Pain and Stubborn Weight

1. Get your labs done. If you don't know where you're at, you don't know where you need to go.
2. Honestly assess how you eat/know how foods impact your blood sugar
3. Work with a professional who can see beyond the "traditional" reference ranges and can help guide you/offer accountability

GOOD HEALTH & HEALING

- Steady Energy
- No Carb or Sugar Cravings
- No "Hangry" Episodes
- Sleep Quality is Good
- Pain Relief
- Healing Happens

BEFORE

AFTER