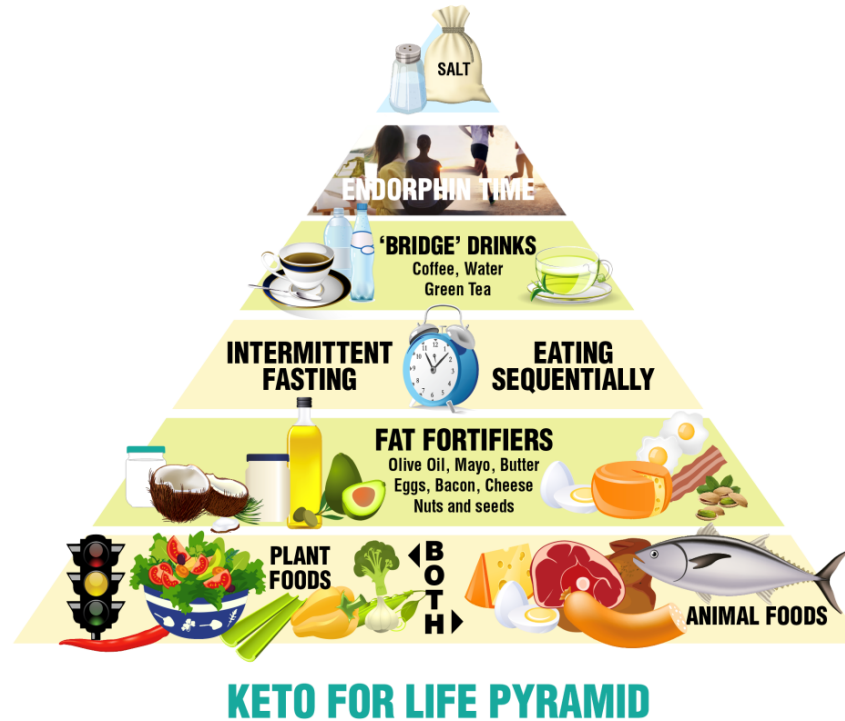


# OBESITY AND DIABETES: TOWARD RESOLUTION

## Nutrition Network, Cape Town 2019



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***FB and IG @RobertCywes, many podcasts***

**<https://youtu.be/QIOOR-dMRIM>**

**No fiscal conflicts**



# LEARNING OBJECTIVES:

- 1) Insulin Production Capacity (IPC) determines obesity OR diabetes: CIMOD
- 2) Weight Management versus Obesity Management: Carbophilia - Are carbohydrates food or drugs? Obesity as a Lifestyle
- 3) Understanding Obesity from a Mental Health Perspective
- 4) Calories and Lipophobia: Eating to Fullness versus Satiety
- 5) Treating Carbohydrate Addiction:
  - a) Staged approach versus Harm Reduction
  - b) Early and Prolonged Satiety for SUSTAINABILITY
  - c) Building an Effective Emotion Management System

# Insulin Production Capacity (IPC) determines obesity OR diabetes:

- 1) **Genetics** of insulin production: high v low (glucagon)
- 2) Insulin sensitivity energy regulation: glucosis, ketosis, gluconeogenesis
- 3) **Behavior** CECC – chronic excessive carbohydrate consumption
- 4) CECC + Early Insulin Resistance = **DIABESOGENIC DISEASE**  
**Cardiovascular effects of glucose and water**
- 5) CECC + Late Insulin Resistance = **OBESOGENIC DISEASE**  
**Obesity and Steroid Hormone Diseases (HGH, Estrogen, testosterone, Cortisol/glucocorticoids, thyroid hormones, aldosterone/mineralocorticoids)**
- 6) Diseases of Dietary Fat and Cholesterol Deficiency due to Lipophobia  
**Inflammation, Cancer, Brain development, function, memory**

# Insulin Production Capacity (IPC) determines obesity OR diabetes: CIMOD simplified

Obesity and T2 Diabetes are the same disease – genetic predisposition

NO gene for either – exclusively behavioral CECC

Your body's response to Carbohydrate Consumption determines disease

**CIMOD**

**C**ARBOHYDRATE-**I**NSULIN **M**ECHANISM OF **O**BESITY AND **D**IABETES

Cholesterol Lipid  Heart Hypothesis



# GLYCOSIS and the OBESE LIFESTYLE

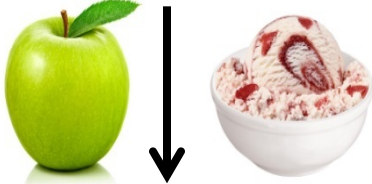
## OBEISITY



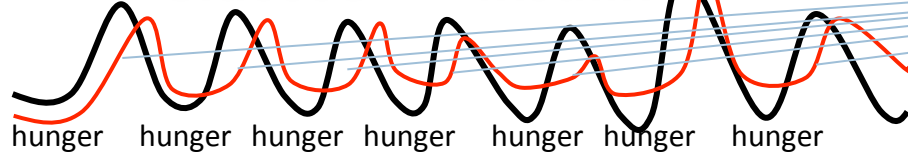
### INSULIN RESISTANCE STAGE

**C-peptide** and **Insulin** levels rise to GENETIC max **1**

#### CARBS



**\*Glucose → \*Insulin**



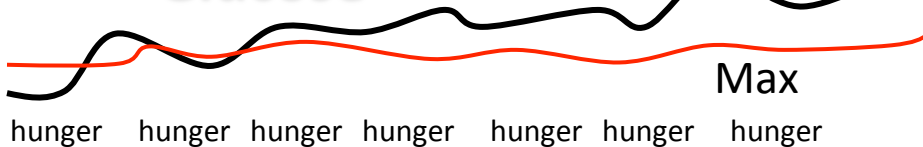
6-8 meals/d – **intermittent eating** – continual replenishment of liver glycogen + **fatty liver**

Appetite  
Stimulant

FA  
↓  
Ketones  
**INSULIN  
BLOCKS  
LPL**

### IR STAGE 2 + TYPE 2 DIABETES

**\*Glucose → \*Insulin**



Max

**BG rises, Glucose to Fat Blocked**

Paradoxical Unrestricted  
Glycogen release + gluconeogenesis

**UNABLE TO MAKE FAT  
KETOSIS BLOCKED**

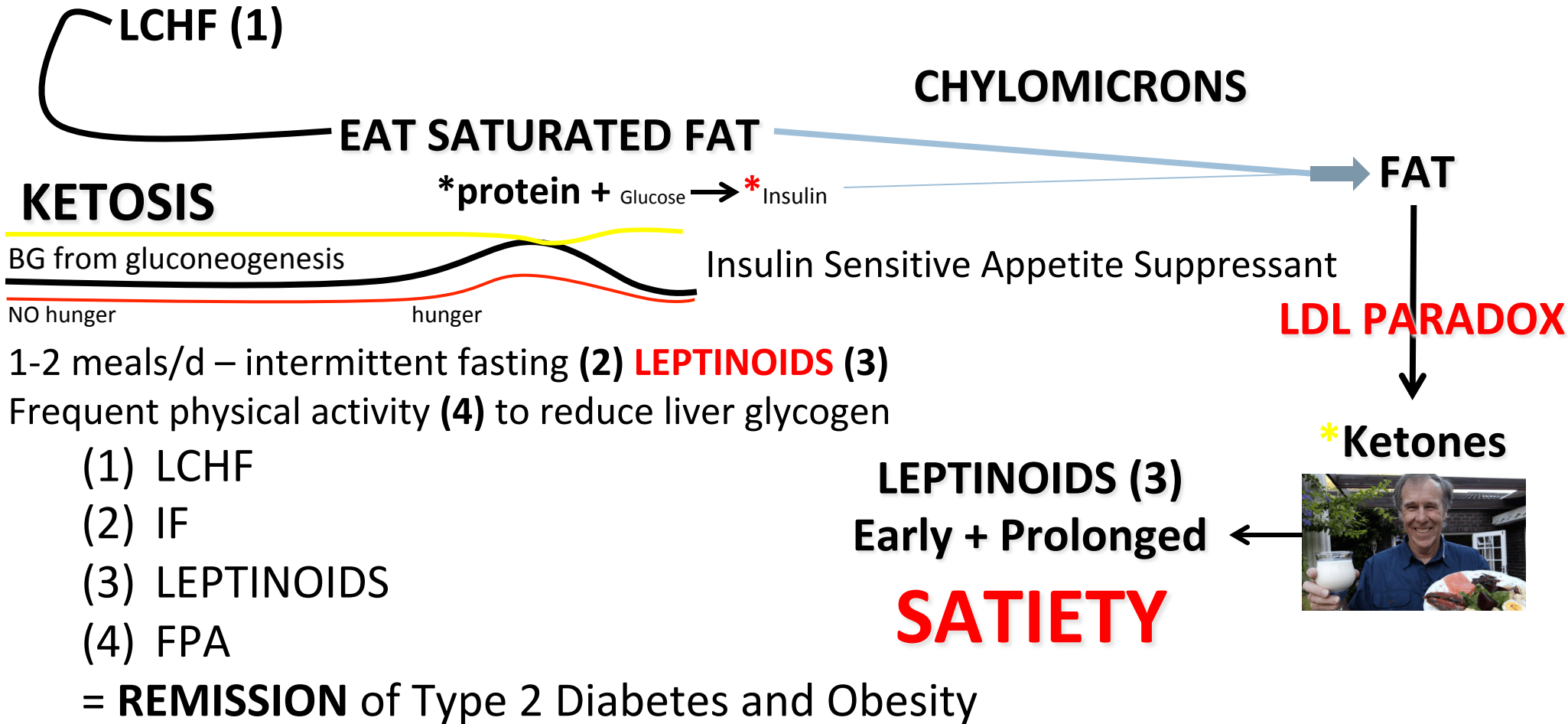


## CIMOD

**Carbohydrate Insulin Mechanism of Obesity and Diabetes**



# KETOGENIC LIFESTYLE



LCHF is the most effective Rx for diabetes – better than any meds

# ARE CARBOHYDRATES FOOD OR DRUGS?

## CARBS AS FOOD:

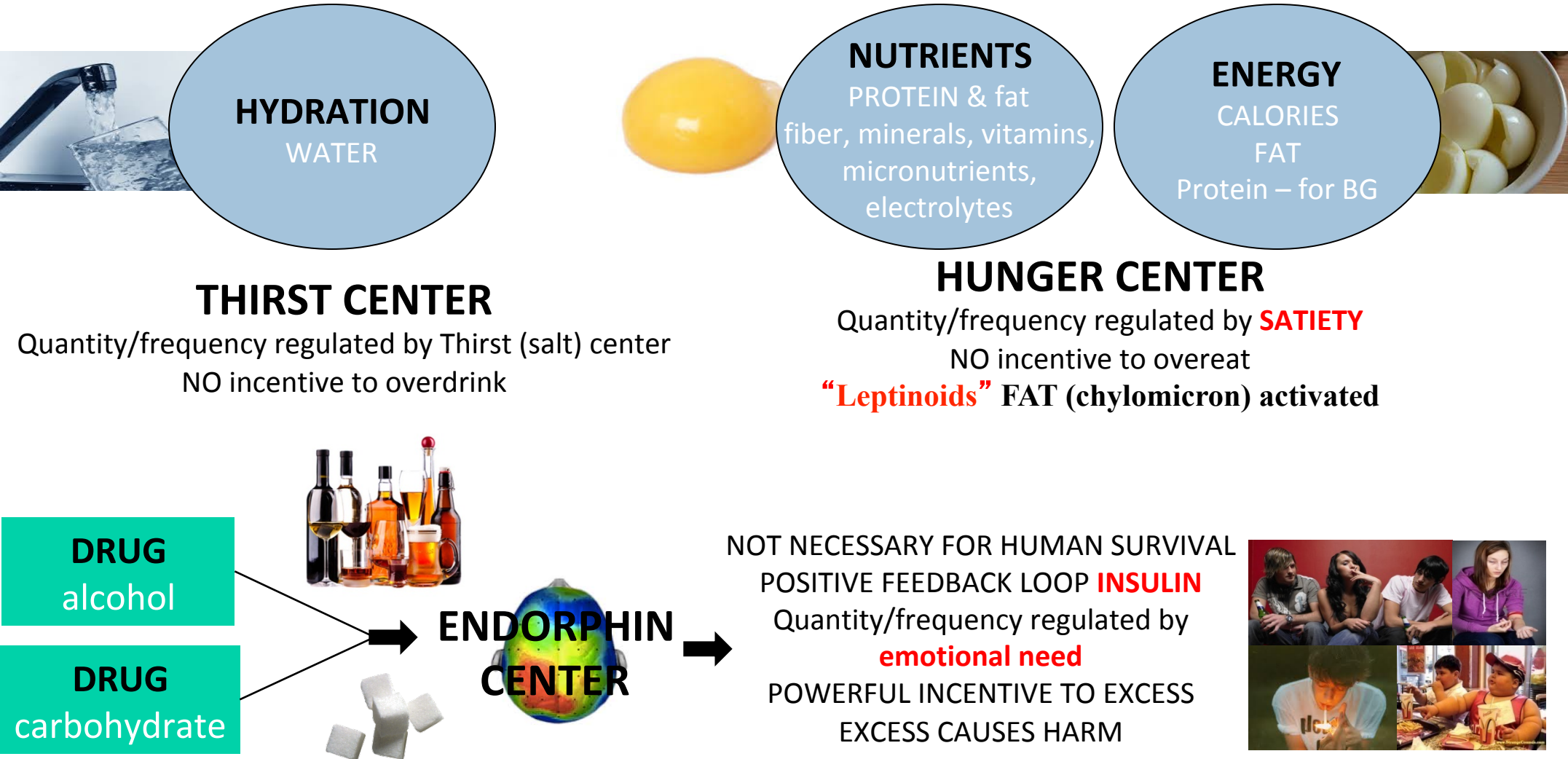
Vehicle for nutrients  
? Adds survival advantage  
Easily becomes FAT  
(peasant communities)  
Tolerable “harm” - IR  
Seasonally available - grown  
Environmentally regulated  
Needed by the community  
Reward is SURVIVAL

## CARBS AS DRUG:

NOT Essential for life  
Now ubiquitous availability  
Positive Endorphin feedback  
NO homeostasis  
Excess is possible and desired  
Excess leads to HARM  
Desired by the brain  
Reward is a “HIGH”

# GENETIC HOMEOSTASIS PREVENTS HARM

## TIGHT CONTROL BY THIRST/HUNGER CENTERS



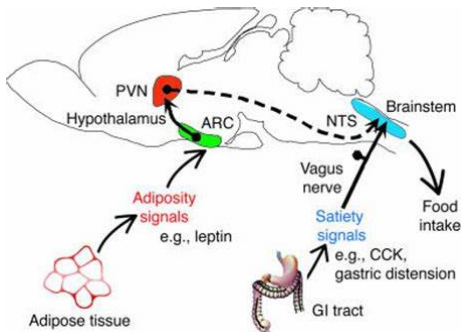


# NUMERICAL FORMULAS VERSUS HOMEOSTASIS



## WATER VERSUS ALCOHOL

## SATIETY VERSUS CALORIES



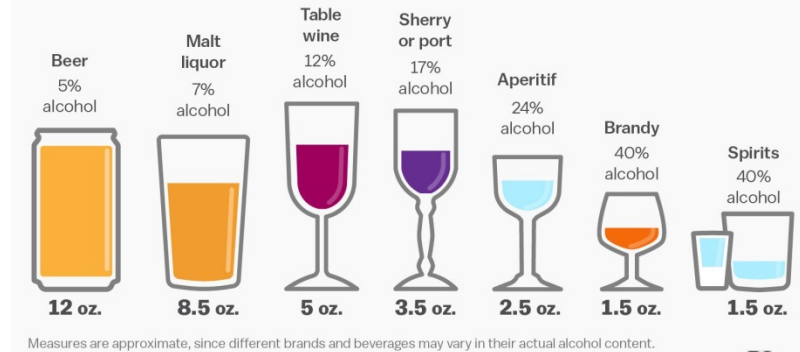
### Thermochemistry: How to measure heat (Energy) changes

- A calorie (cal) is the amount of energy (heat) required to raise the temperature of one gram of water by one degree Celsius.
- The “calorie” written on food is actually not one calorie in chemistry. It is actually 1 kilocalorie (or 1000calories) and is written with a capital C (Calorie) to keep the two separate.
- A Joule (J) is the SI unit for measuring the amount of energy or heat transferred in chemistry.
- Write down this conversion factor:

$$1 \text{ cal} = 4.184 \text{ J}$$

### This is what one drink looks like

According to the Dietary Guidelines for Americans, moderate drinking is up to one drink per day for women and up to two drinks per day for men. A standard drink contains 14 grams of pure alcohol.



Vox

### How are calories related to weight

**1 Pound (lb) = 3,500 Calories**



In Weight

Every extra 3,500 Calories stored in your body will cause you to gain one pound.

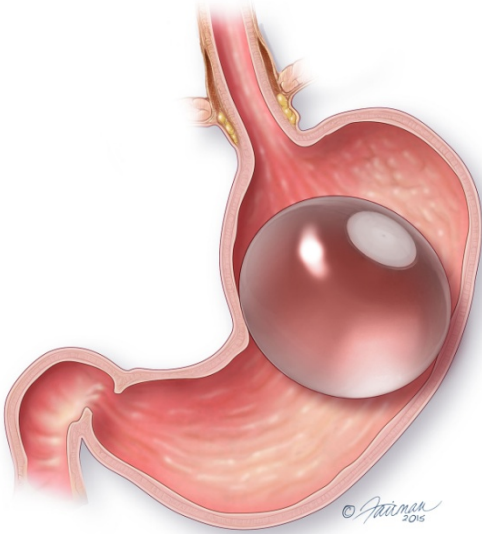


In Weight

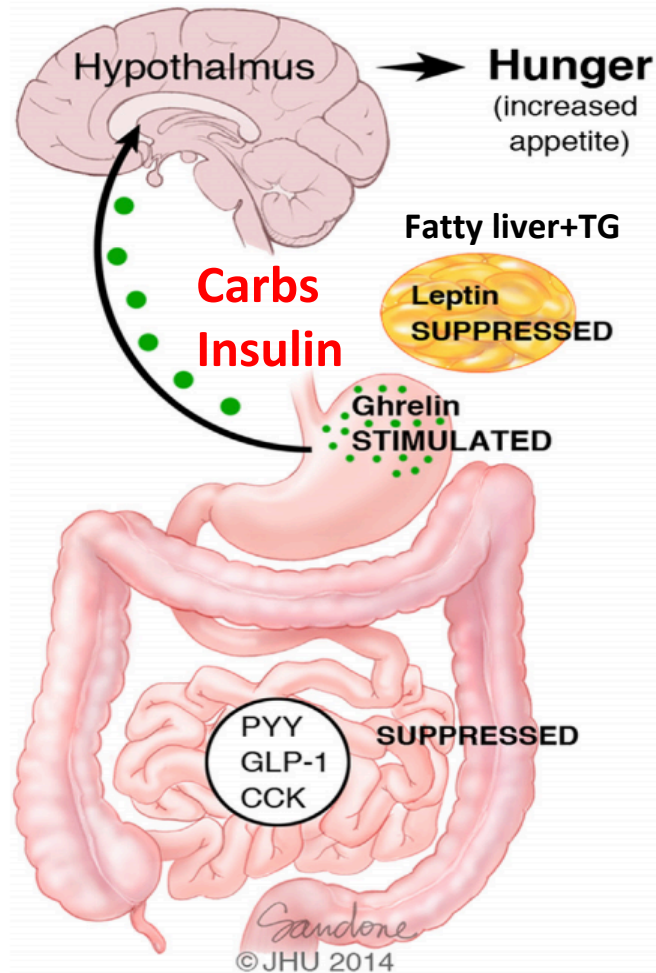
Retrospectively if you lose 3,500 Calories you will lose one pound.

# FEELING FULL versus SATIETY

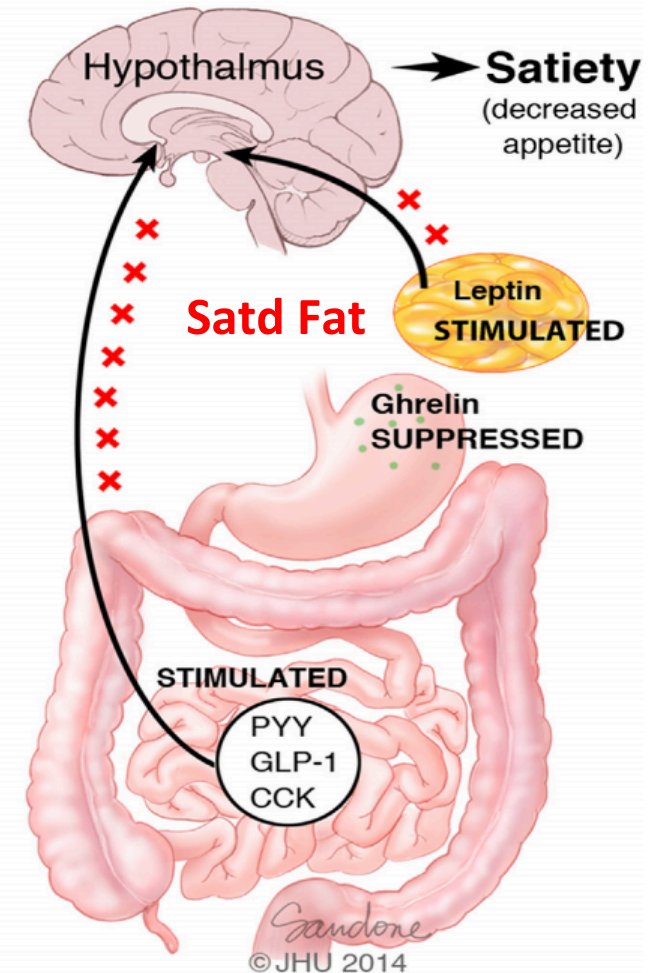
Gastric Distension +  
Obstruction Fullness



Carbs Defy Fullness and Satiety  
Hunger from BG fluctuation



KETOSIS from Saturated Fat  
EARLY and PROLONGED Satiety



## **Weight Management versus Obesity Management**

**Weight Management is about Calories and Kilos**

**Obesity Management is about Behavioral Change**

# ANCESTORY OF A **HEALTHY** LIFESTYLE

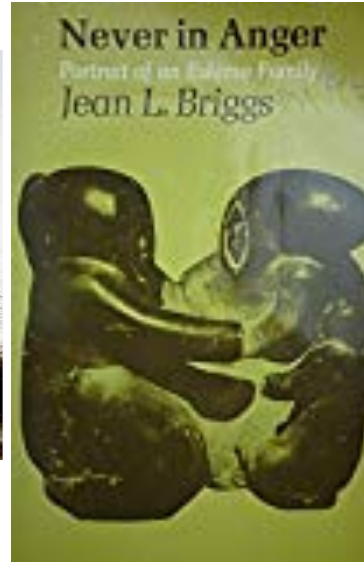


## Typical Eskimo Diet:

- Similar to **Ketogenic Diets** in terms of being high in fat and protein, no or very low carb.
- Variety of fish, seal, reindeer, polar bear, walrus, whale, grouse- including intestines, berries.
- Most foods are served frozen, boiled, raw, dried and plain with hardly any added ingredients.
- There is no obligation to eat when others are eating. Eskimos basically **eat when they are hungry**, apart from the regular two main meals. **KETO-EVANGELISM**



# ANCESTORY OF A **HEALTHY** LIFESTYLE



## **Eskimos as parents:**

Before Inuit children are taught how to hunt and work, they are taught how to behave with others. "Traditional Inuit parenting is incredibly **nurturing and tender**. If you took all the parenting styles around the world and ranked them by their gentleness, the Inuit approach would likely rank near the top." *Doucliff from Briggs 1971 Never in Anger*

The way children respond to difficult circumstances appears to be something they learned from their parents. And what kind of children does that tender society produce?

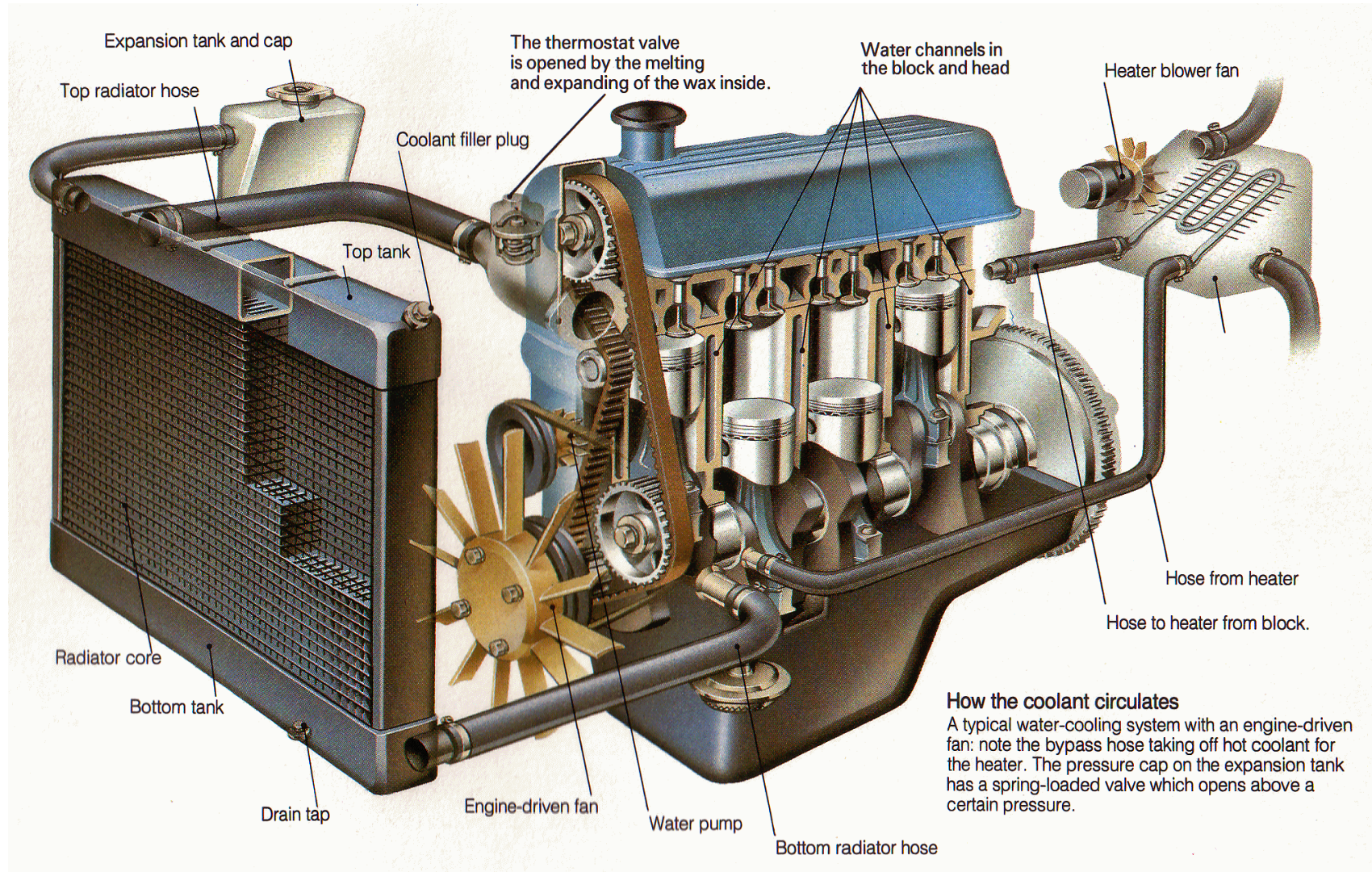
The kind, it seems, who can live harmoniously in one of the world's harshest, most **stressful** climates — often with threadbare resources, where survival hinges on making the most efficient use of their natural world.

And yet this group still manages to **be at peace with itself and with others**.

Maybe that's because it's also the kind of society that teaches kindness above all else.



# PRODUCTIVITY REQUIRES A COOLING SYSTEM



# PSYCHOPHYSIOLOGY OF A **HEALTHY** LIFESTYLE



**EFFECTIVE  
PRODUCTIVITY  
+  
EMOTIONAL  
BOUYANCY**

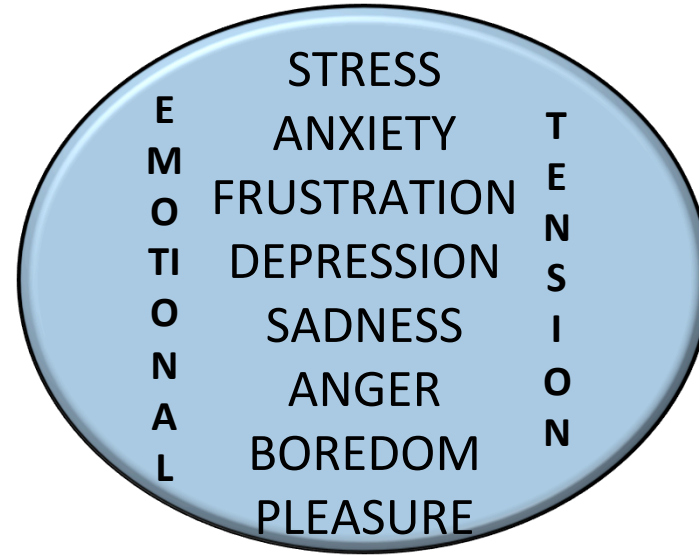
Creative Arts  
Meditative  
Spirituality  
Physical Activity  
Human Connection  
Sexuality  
Substances

Healthy people  
diverse effective  
emotion  
management system  
**EFFORT  
TIME**



**DISSIPATE**  
emotions  
**PROCESS**  
issues

# PSYCHOPHYSIOLOGY OF AN **ADDICT'S** LIFESTYLE



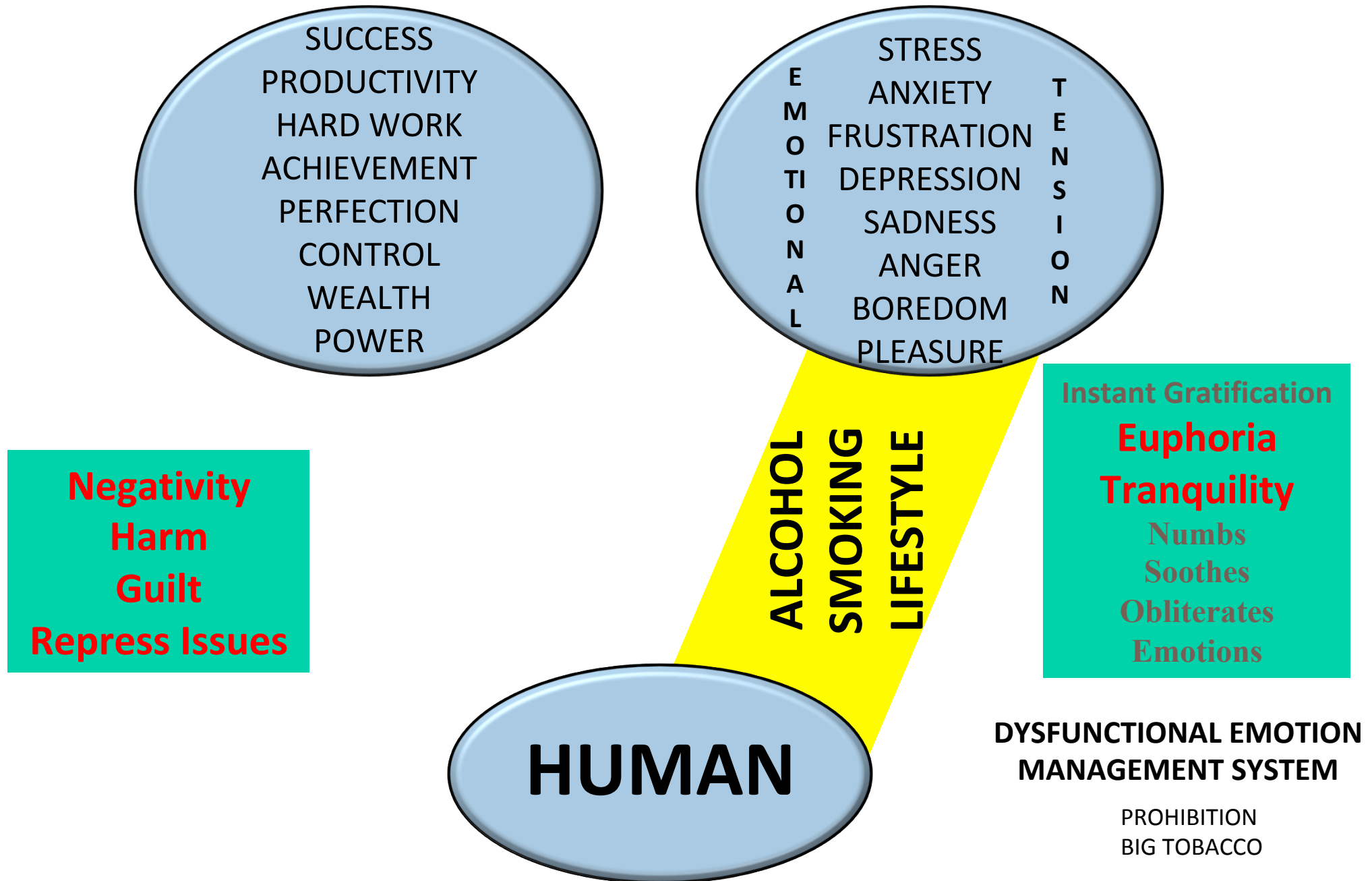
**ROOT CAUSE OF NORMAL CHILDREN**

**DEVELOPING MENTAL HEALTH DISEASE**

**DEFICIENT EMOTION  
MANAGEMENT SYSTEM**



# PSYCHOPHYSIOLOGY OF AN **ADDICT'S** LIFESTYLE



# HISTORY OF LIPOPHOBIA AND CARBOPHILA

## 1943



Skinny People Smoking and Drinking

# PSYCHOPHYSIOLOGY OF **OBESE LIFESTYLE**

## **SOCIETAL FOCUS**

SUCCESS  
PRODUCTIVITY  
HARD WORK  
ACHIEVEMENT  
PERFECTION  
CONTROL  
WEALTH  
POWER

## **SOCIETAL REALITY**

LOW SELF-ESTEEM SELF  
CONFIDENCE

**Psychotropics + Anti-depressants**  
**Disruptive Behavior, Suicide,**  
**PTSD**

E  
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STRESS  
ANXIETY FRUSTRATION  
DEPRESSION SADNESS  
ANGER BOREDOM  
PLEASURE

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JUSTIFICATION  
VALIDATION

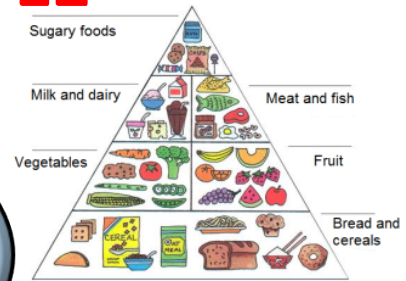
CARBS  
SNACKING  
AS A LIFESTYLE

IGNORE HARM

**CARB ADDICTION**

OUT  
OF  
CONTROL

**HUMAN**



**OBESEITY**  
**METABOLIC**  
**SYNDROME**  
**T2DM**  
**CIMOD**



# RESULT OF LIPOPHOBIA AND CARBOPHILA 2019



Obese People Doing Carbohydrates  
“Genetic” in a Generation???



# ADHERENCE AND EFFECTIVENESS OF 4 POPULAR DIETS WHY THE “SCIENCE” OF THE “BEST” DIET IS QUESTIONABLE

## Mean Weight change at 1 year

**Atkins** (carbohydrate restriction)

4.8 lbs (2.1 kg)

53% completed 8 wk diet

Ornish (Fat restriction)

7.3 lbs (3.3 kg)

50% completed 8 wk diet

Weight Watchers (Energy restriction – calories)

4.9 lbs (2.2 kg)

65% completed 8 wk diet

Zone (Macronutrient balance)

6.0 lbs (2.7 kg)

65% completed 8 wk diet

Dansinger JAMA 2005

Intentional calorie-restricted diets are all forms of **STARVATION** and defy **SATIETY**

**HARM REDUCTION v ADDICTION METHODOLOGY**

No diet treats the **OBESITY LIFESTYLE (EMS replacement)**

**RATS IN CAGES VERSUS FREE-LIVING SUBJECTS - BIAS**



# TREATING OBESITY AND TYPE 2 DIABETES

## ADDICTION

CHRONIC EXCESSIVE USE OF AN ENDORPHIN-RELEASING SUBSTANCE  
TO THE POINT OF HARM  
IGNORING AND DISTORTING THE REALITY OF THE HARM  
TO CONTINUE THE RELATIONSHIP

Alcoholic: “I need a drink”

Carbaholic: “I’ m hungry”

**Diets, even LCHF, modify weight**

CARBOHYDRATE ADDICTION Cognitive Behavioral Therapy  
changes OBESOGENIC BEHAVIOR

# **TREATING OBESITY AND TYPE 2 DIABETES**

## **STAGES OF CHANGE (Prochaska)**

### **OWNERSHIP CONTEMPLATION**

- 1) TOTAL Carbohydrate Consumption?**
- 2) How often?**
- 3) WHY?**

# TREATING OBESITY AND TYPE 2 DIABETES

## STAGES OF CHANGE

**DIET:** Eating the Elephant – sustainability and no “flu”  
4 sequential stages to **CARB REMOVAL**

- 1) Remove calories from all drinks. Bring in replacements
  - Never drink calories
  - Ritualize a “Bridge” every 20-30 min (coffee)
  - Alcohol is permitted. Tight Boundaries. No carb mixers

SALT, SALT, SALT



# TREATING OBESITY AND TYPE 2 DIABETES

## STAGES OF CHANGE (2)

- 2) Remove all “VEHICLE” foods – eat what’s inside
  - starches, grains, pastas, breads, etc.
  - NO substitutes or “lookalikes” eg Almond flour “cake”
  - NO rice or potatoes – all other vegetables are FREE
  - Vegetarian or Carnivore REAL FOOD
- 3) Eliminate SNACKS – a snack is always an emotional event
  - define “bridge” versus snack – build bridges
- 4) Eliminate ALL FRUIT – avos, tomatoes, olives excepted
  - NO berries - drivebys

# TREATING OBESITY AND TYPE 2 DIABETES

## STAGES OF CHANGE

Use **fat-triggered LEPTINOIDS** for biochemical **SATIETY**

1a) ZERO TOTAL CARBS – Incidentals <30 g, no “allowance”

1b) Select food based on **FAT + FAT FORTIFY** every meal  
- Protein is IRRELEVANT (along for the ride if protected)

2) EAT SEQUENTIALLY

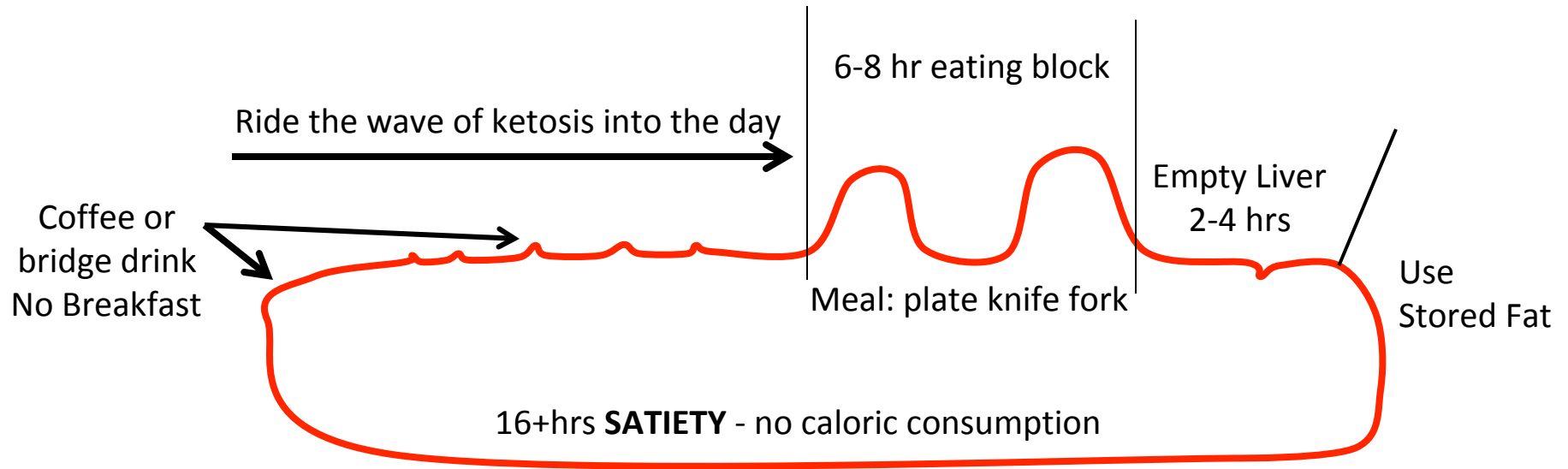
# TREATING OBESITY AND TYPE 2 DIABETES

## STAGES OF CHANGE

**DIET:** Leveraging **KETOSIS** for **SATIETY** in 4 steps

3) “intermittent fasting” 18:6, 16:8, 23:1 Longer fasts 3-5 d

Eat when your stores are depleted



4) Physical Activities – “micromoments”  
- Endorphin Events and Liver Emptying

# TREATING OBESITY AND TYPE 2 DIABETES

## STAGES OF CHANGE

### AN EFFECTIVE EMS REQUIRES:

**EFFORT** to **dissipate** emotion, **TIME** create a **meditative space**

1) Connect regularly with how you feel - NAME IT:

“anxiety tornado”, “I feel wounded”, “like I am in a hole”, “bouncy”, “I feel fetal”, “procrastinatory”

2) Preempt: Pride, Plan, Prepare - **EMOTIONAL BUOYANCY**

2) Ritual bridge MCMs every 20-30 min (mind-cleansing moments)

3) Troll for “action snack” pride opportunities

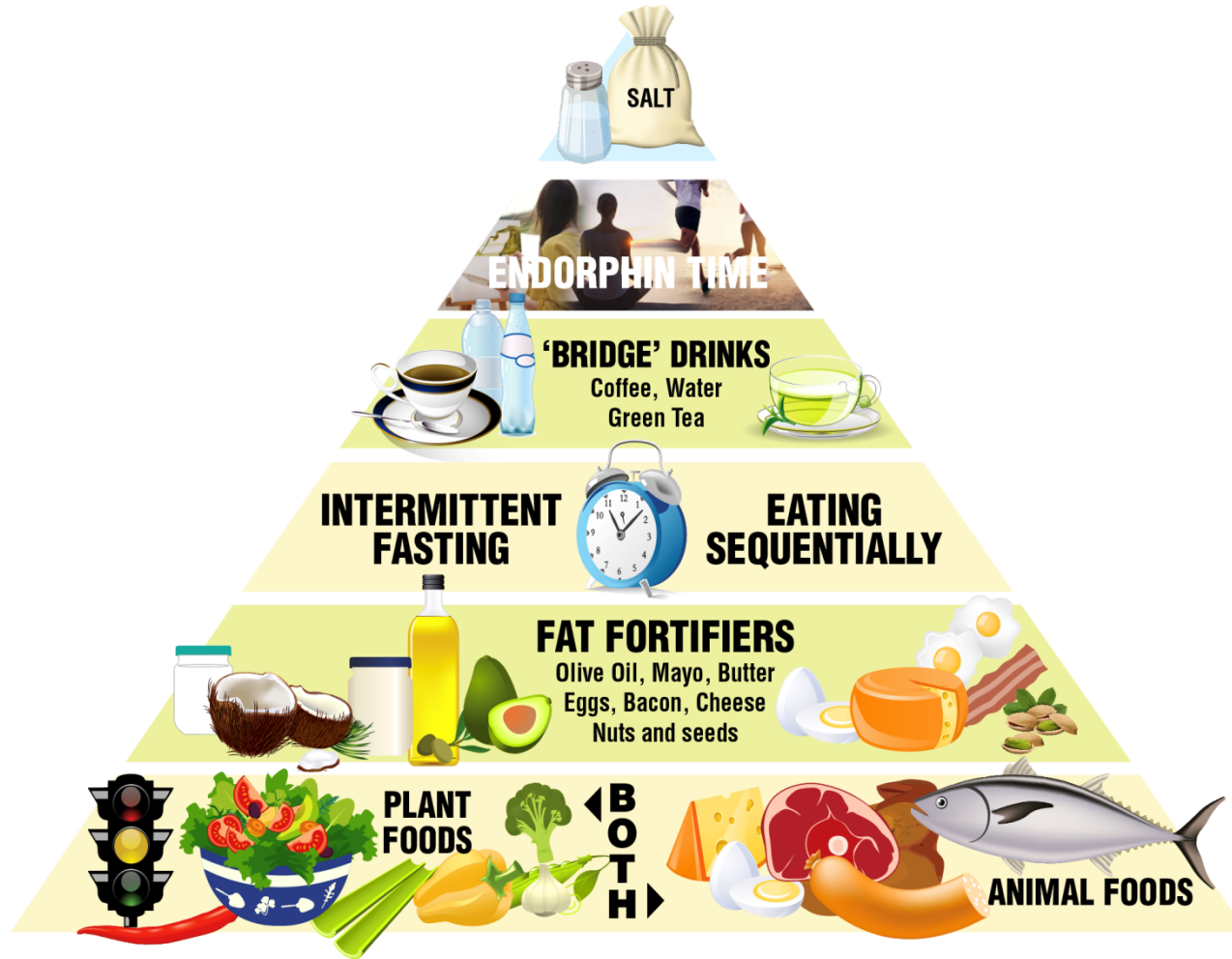
4) Take risks: effort/time based actions - **EMOTIONAL RESILIENCE**

- Creative arts, meditative spirituality, physical activity, human connection

5) **EMPATHY GRATITUDE KINDNESS**

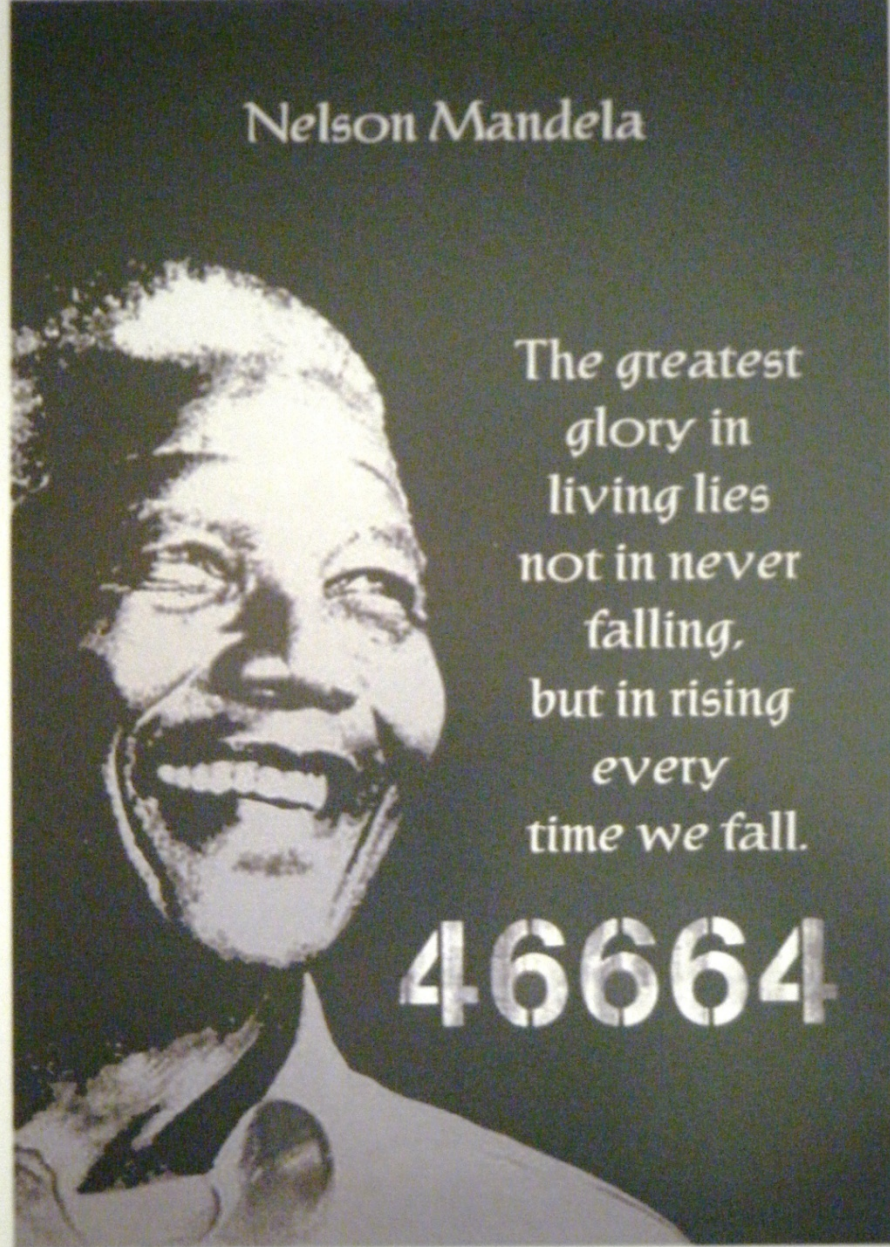
# Whole-Hearted Living

you've just read our book



**KETO FOR LIFE PYRAMID**

THANK



YOU