



INSULIN RESISTANCE
— SOLUTION —
PRACTITIONER TRAINING

Nutrition

With Dr. Ritamarie Loscalzo

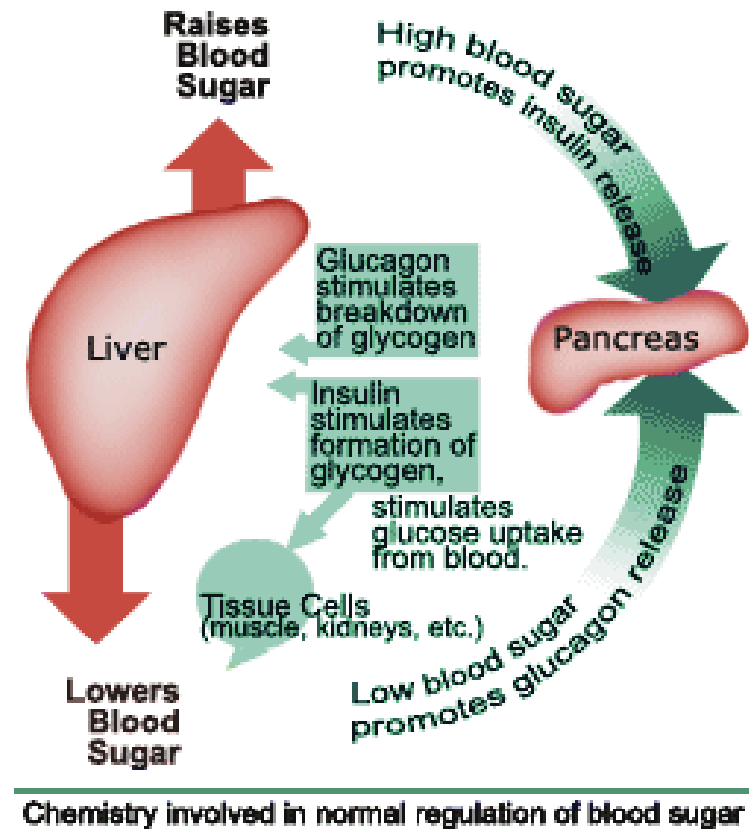


Medical Disclaimer: The information in this presentation is not intended to replace a one-on-one relationship with a qualified health care professional and is not intended as medical advice. It is intended as a sharing of knowledge and information from the research and experience of Dr. Ritamarie Loscalzo, drritamarie.com, and the experts who have contributed. We encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional.

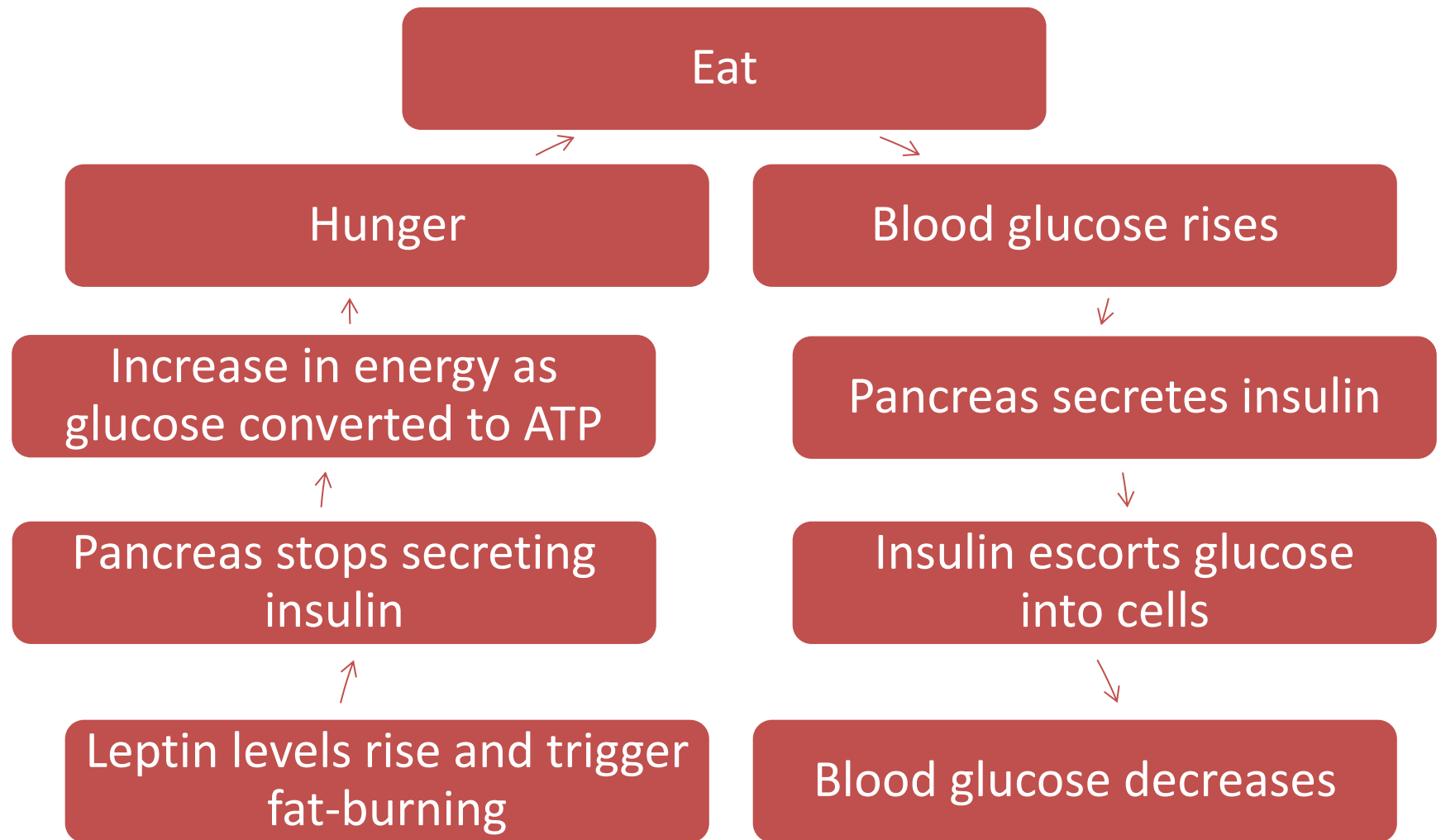


Normal Blood Sugar Management

- ✓ Involves pancreas, liver, and adrenals
- ✓ When blood sugar gets too high – insulin
- ✓ When blood sugar gets too low – glucagon
- ✓ Affected by stress
- ✓ Affected by diet
- ✓ Affected by genetics



Normal Insulin Response to Food



Key Lifestyle Areas to Address



5 Key Steps to Restore Balance

Increase

- **insulin sensitivity**

Decrease

- **insulin need**

Reduce

- **inflammation**

Optimize

- **fat burning and lean mass building**

Minimize

- **impact of “candy bar eating” effects of stress**



Symptoms of Insulin Resistance



Belly
Fat



Low Energy
(especially
after meals)



Hungry
(even
after a
full
meal)



Mid-
afternoon
Energy
Slump



Difficulty
Focusing



Cranky
and
Irritable
if Meal
Missed



Nutritional Causes of Insulin Resistance

- ✓ Omega-3 fat DHA deficiency in the cell membrane
- ✓ Elevated omega-6 to omega-3 fatty acid ratio in cell membrane
- ✓ Trans fats in cell membrane
- ✓ Deficiencies of chromium, magnesium, zinc, B vitamins, boron, and lithium
- ✓ Eating high-glycemic meals, snacks, and sweet drinks
- ✓ Insufficient protein



Overview of Insulin Resistance

Nutrition

- ✓ Get nutrients in place
- ✓ Carb avoidance: Keep sugars below 110
- ✓ Allergen avoidance: Decrease inflammation
- ✓ Foods that aid in insulin sensitivity
- ✓ Herbs that assist in blood sugar management
- ✓ Nutrients that help keep blood sugars balanced
- ✓ Time meals for optimum insulin/growth hormone balance



Introductory Food Guidelines

❑ A collection of PDF documents related to introductory diet and nutrition ideas. Add vs. take away at first.

- Shopping Guidelines
- Hydration
- Digestion Strategies
- Greens
- Beverages
- Omega-3 rich foods: Chia, Hemp, etc.



Nutrients

Get familiar with the recommended supplements to **thwart sugar and carbohydrate cravings** as these supplements contribute to the repair of insulin receptors and the reduction of carbohydrate cravings

- Chromium
- Magnesium
- DHA



***B4 Be Gone Supplement Resource Guide PDF*

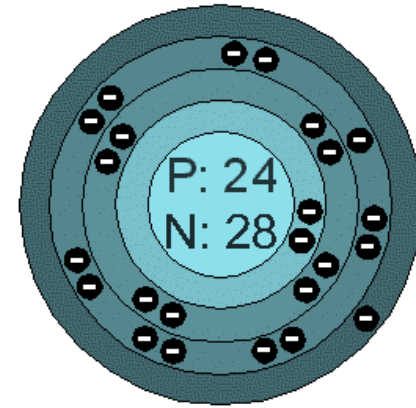


Chromium Mechanism in Sugar Metabolism

Immediate supplementation with chromium and magnesium is necessary to break the vicious cycle of insulin resistance.

800 mcg per day – with meals for best result

- ✓ Chromium is stored in liver between meals and released in response to insulin secretion
- ✓ Chromium promotes the binding of insulin to the cells
- ✓ Elevated and prolonged insulin curves allow excessive excretion of chromium, "strip-mining" it from the system
- ✓ Hyperinsulinemia promotes chromium excretion, and chromium deficiency promotes hyperinsulinemia

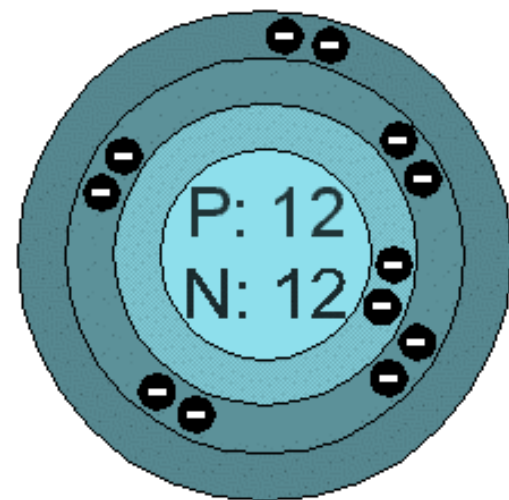


Magnesium Mechanism in Sugar Metabolism

Immediate supplementation with chromium and magnesium is necessary to break the vicious cycle of insulin resistance.

Magnesium 400 – 800 mg per day

- ✓ Insulin acts as a "magnesium diuretic" and promotes excessive loss
- ✓ Magnesium is essential for the cellular response to insulin binding
- ✓ Hyperinsulinemia causes magnesium deficit, and magnesium loss promotes insulin resistance



Replenish Nutrients As Needed

- ✓ **DHA:** 350-500 mg per day, omega-3 fat
 - ✓ **Green leafy vegetables:** minerals, B-vitamins, antioxidants
 - ✓ **Sea vegetables:** minerals and omega-3 fats
 - ✓ **Chia seeds, flax seeds, hemp seeds:** omega-3 fats
 - ✓ **Pumpkin seeds:** zinc
 - ✓ **Brazil nuts:** selenium
 - ✓ **Protein powder:** protein deficiency can be due to dietary inadequacy OR impaired digestion
 - ✓ **Small quantity of lean organic, free-range animal protein or fish:** if you prefer versus protein powder or used in addition
- 
- A collage of various health supplements and ingredients. It includes a white container labeled 'PROTEIN', a piece of seaweed, a bunch of green leafy vegetables, a pile of red leafy vegetables, a small bag of chia seeds, a pile of flax seeds, a pile of pumpkin seeds, a pile of Brazil nuts, and a small pile of yellow capsules.



Optimize Levels of Nutrients

“Supplement Checklist for Improving Insulin Sensitivity” PDF

- ✓ **Vitamin C:** 1000 mg x 3 or to bowel tolerance
(see *“Vitamin C Calibration”* instructions)
- ✓ **Vitamin D3:** For extra support, consider getting your Vitamin D tested -- ideal range is 75 to 100
Supplement with Vitamin D3 as needed:
1000 IU to 20,000 IU per day
- ✓ **Vitamin B complex:** For overall energy and hormone support
- ✓ **Magnesium:** Review *“Magnesium Loading”* document to ensure adequate magnesium intake



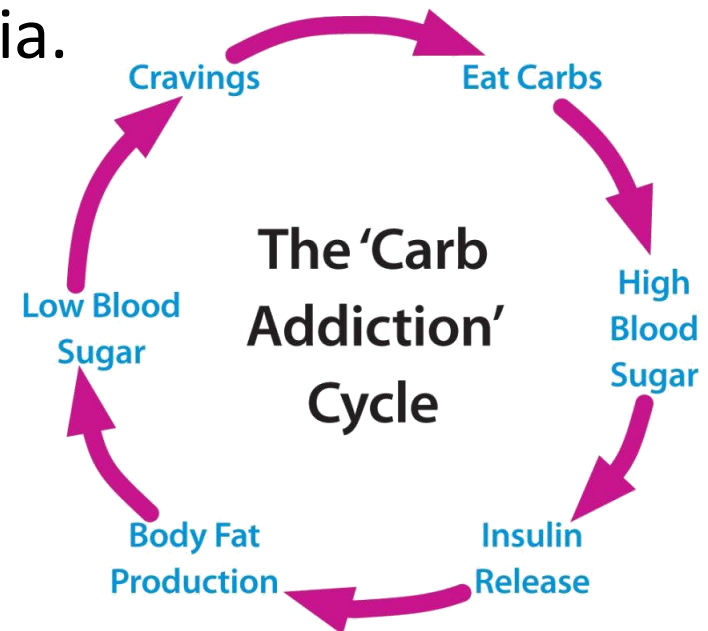
Foods To Trash: Strictly For First 2 Weeks – and Ideally for 30 Days or Longer!

- ✓ High glycemic carbohydrates
- ✓ Processed fats, trans fats, oxidized fats, heated fats
- ✓ Top allergens and all known allergens
- ✓ Foods and combinations that raise insulin but not glucose
- ✓ Commercially grown food



Break the Vicious Cycle of High-Glycemic Carbohydrate Addiction

- ✓ High-glycemic carbs promote excess insulin.
- ✓ Normal cells adapt to the high levels by “turning off” and thus require a very large amount of insulin to open up.
- ✓ High insulin leads to hypoglycemia.
- ✓ Hypoglycemia leads to cortisol and/or adrenaline spikes.
- ✓ Adrenaline and cortisol spikes promote craving for high-glycemic carbs.



Eliminate High-Glycemic Carbs and Processed Fats

- ✓ No sugar or relatives. Alternatives: stevia, xylitol, erythritol (**Zero**), Lo Han, **Lakanto** – small amounts as tolerated
- ✓ No flour: crackers, pasta, bread
- ✓ No grains except possibly quinoa if glucose tested and it is normal
- ✓ No legumes unless glucose tested and normal curve
- ✓ No potatoes (sweet potatoes, yam, and squash may be included if glucose testing says okay)
- ✓ No bananas, mangoes, papaya, and other high sugar fruits
- ✓ No dried fruit or fruit juice
- ✓ No heated oils, trans fats
- ✓ Only low-glycemic fruits in small quantities (if tolerated based on glucose readings)



Balance Omega-3 and Omega-6

Fats; Avoid Oxidized Fats

- ✓ Oxidized fats damage insulin receptors
- ✓ Ideally no oils at all; just whole food fats
- ✓ No margarine, mayonnaise
- ✓ No corn oil, soybean oil, or vegetable oil of any kind
- ✓ Only oils allowed in small to moderate amounts are olive, coconut (can be lightly heated - although not ideal), or cold-pressed flax oil
- ✓ Whole food fats that enhance omega-3 status: chia, coconut, flax, hemp, walnut (see Omega 3/6 chart)



Glucose Balancing Beverages

- ✓ A.M. Gut Rejuvenator Drink
- ✓ Blended Green Drink
(also called “Green Smoothies”)
- ✓ Green Drinks
- ✓ Chia Energy Drinks
- ✓ Flavored Water
- ✓ Protein Shakes



Foods and Herbs to Manage Glucose Levels - Resources

- ✓ *Omega-3 and Omega-6 Content of Common Foods Chart: PDF and Excel Spreadsheet Versions*
- ✓ *Chia Seed Nutrition Chart*
- ✓ *Foods That Improve Insulin Sensitivity*
- ✓ *Effects of Food on Glucose and Insulin*
- ✓ *How the Glycemic Index of Foods are Measured*
- ✓ *Herbs Reported to Restore Insulin Sensitivity*
- ✓ *Supplement Checklist For Improving Insulin Sensitivity*
- ✓ *Magnesium Loading*
- ✓ *Vitamin C Calibration*
- ✓ *Food Sources of Potassium*
- ✓ *EWG Pesticide Guide: Dirty Dozen and Clean 15 Lists*



Organic Food as Much as Possible



According to Dr. Gabriel Cousens, “There is a Cure for Diabetes.”
Pesticides may damage insulin receptors.



Foods That Improve Insulin Resistance

- ✓ Broccoli
- ✓ Avocado
- ✓ Alfalfa
- ✓ Blueberries
- ✓ Greens
- ✓ Brussels sprouts
- ✓ Citrus peel extract
- ✓ Turmeric
- ✓ Stevia
- ✓ Bitter melon
- ✓ Prickly pear or Nopal cactus – fresh or capsules
- ✓ Cinnamon
- ✓ Cardamom
- ✓ Ginger
- ✓ Algae and seaweed



Foods That Improve Insulin Resistance: Mechanisms

- ✓ **Jerusalem artichoke:** Inulin
- ✓ **Cabbage:** B. oleracea – antioxidants
- ✓ **Cucumber:** Substance needed by the beta cells of the pancreas to produce insulin
- ✓ **Garlic and onion:** Sulfur
- ✓ **Carob:** Pinitol



Herbs That Restore Insulin Sensitivity

- ✓ **Fenugreek:** Lowers insulin and triglycerides and increases HDL
- ✓ **Cinnamon:** Enhances insulin receptor sensitivity
- ✓ **Maitake Mushroom:** Improves sensitivity and lowers sugar, insulin, and triglycerides
- ✓ **Bitter Melon:** Lowers both insulin and triglycerides
- ✓ **Basil:** Improves insulin sensitivity
- ✓ **Nopal Cactus:** Mechanism not fully understood -- thought to improve insulin sensitivity and slow absorption of glucose through the intestinal wall
- ✓ **Ginger:** Increases insulin sensitivity and decreases inflammation



Other Herbs: *Gymnema Sylvestre*

- ✓ Touted as a good herb for reducing blood sugar
- ✓ Slows absorption of glucose
- ✓ Increases insulin
- ✓ Boosts pancreatic beta cells
- ✓ Probably best for Type 1 Diabetes and end stage Type 2 Diabetes
- ✓ May not be good for people with insulin resistance



Other Herbs: Ginseng

- ✓ Decreases blood sugar
- ✓ No effect on serum lipids
- ✓ Theorized that the reduction in glucose is by slowing intestinal absorption
- ✓ Might also raise insulin
- ✓ Awesome for adrenals so can indirectly improve insulin resistance
- ✓ Be careful in advanced insulin resistance



Foods to Eat for 30 Days

- ✓ Vegetables – raw or cooked: unlimited
- ✓ Blueberries, green apple, and grapefruit only if they can be eaten, with glucose maintained ≤ 110
- ✓ Raw nuts, preferably soaked and rinsed
- ✓ Coconut
- ✓ Raw seeds
- ✓ Daily omega-3: chia, flax, hemp
- ✓ Cold water fish and wild game or organic free-range meat if not vegetarian and not allergic



Foods to Test Then Eat Cautiously for 30 Days

- ✓ Low sugar, high-water content fruits... test them! No more than 1 serving per day if tolerated
 - ✓ Legumes: some people tolerate, others do not – test!
 - ✓ Starchy seeds like quinoa and buckwheat... best to avoid at least for the first two weeks.
- ***Test using 5 or 6 hour glucose tolerance test: glucose never exceeds 110 and never dips below starting value.***





Meal Planning: Breakfast Options

- ✓ *Gut Rejuvenator* in AM upon awakening
- ✓ Green protein drink within an hour
- ✓ Chia porridge with coconut
- ✓ Chia drink
- ✓ Green smoothie (with or without fruit -- test)
- Breakfast entrée from B4 Be Gone

Greens, chia, and coconut are important





Meal Planning: Lunch and Dinner Options

- ✓ Blended soup or vegetable rich soup (raw or cooked) one or both meals. Include a healthy fat.
- ✓ Salad with dressing – containing whole foods fats, preferably, low oil.
- ✓ Vegetable dish (raw, cooked, or both).
- ✓ Protein source -- one or both of the following:
 - Raw vegan veggie/nut/seed paté, dehydrated carb replacement. Can also use nuts or seeds in salad or as a dressing.
 - Lean, organic, free-range meat, deep ocean fish, or wild game (up to 3 ounces).





Meal Planning: Dessert Options

- ✓ Desire for sweets after a meal will take a while to reverse.
- ✓ Low-glycemic desserts in *B4 Be Gone Recipe Collection* aid the transition.
- ✓ Make a batch and keep in freezer or refrigerator for curbing cravings.
- ✓ Preferably high omega and sweetened with low-glycemic sweeteners





Snack Attack Strategy

- ✓ **Step 1:** Tune into the sensation.
- ✓ **Step 2:** Differentiate hunger from thirst.
- ✓ **Step 3:** Satisfy hunger with blood sugar-friendly foods.



Snack Attack Approved Foods

- ✓ *Green water
- ✓ *Green juice – no fruit except lemon or lime
- ✓ *Water with 1 tablespoon green powder, flavored to taste awesome
- ✓ *Water with 1 tablespoon green powder and 1 serving protein powder
- ✓ **Chia Energy Drink* with or without greens and/or protein powder
- ✓ Vegetable sticks by themselves or with a raw food dip (dairy-free, gluten-free, whole food)
- ✓ An ounce of raw nuts or seeds
- ✓ Raw crackers or bread made from vegetables, nuts, and seeds

*16 - 32 ounces is a good serving size for beverages.



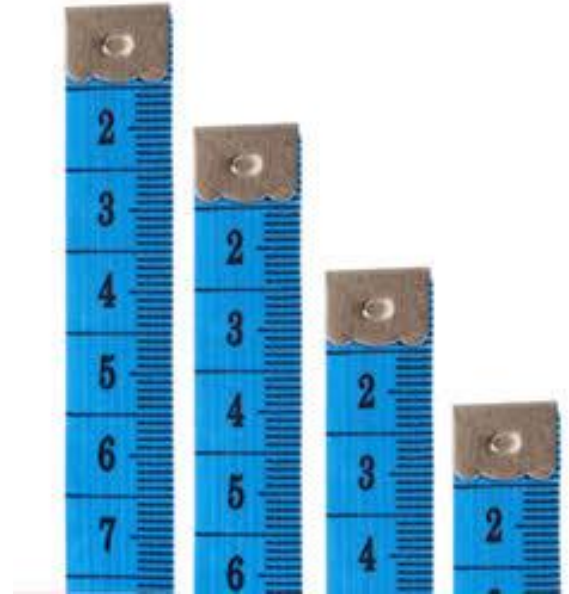
Meal Timing

- ✓ **No snacking:** prolonged insulin curves or more frequent insulin spikes plus decreased leptin promote obesity.
- ✓ **No getting famished,** weak , or jittery.
- ✓ **No eating at night:** it increases insulin and decreases growth hormone and leptin.
- ✓ **No high carbohydrate breakfast:** it causes a premature spike in leptin and food cravings.
- ✓ **Eat protein within an hour of waking:** it promotes growth hormone and regulates insulin.
- ✓ **Gradually increase** meal spacing.



Tracking is Critical

- ✓ Food diary, including amounts and preparation (i.e., raw, steamed, roasted)
- ✓ Glucose before and after meals
- ✓ Pulse before and after meals
- ✓ Degree of hunger
- ✓ Stress level and emotional state
- ✓ Digestion, including bowel movements
- ✓ Discomforts
- ✓ Anything else



Insulin/Glucagon Dance

