



INSULIN RESISTANCE  
— SOLUTION —  
PRACTITIONER TRAINING

# Implementation

*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](http://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.



# Insulin Resistance Solution

Introduction

Assessment

Nutrition

Stress

Fitness

Sleep

Timing

Implementation

Education and Marketing



# 5 Key Steps to Restore Balance

**Increase**

- insulin sensitivity

**Decrease**

- insulin need

**Reduce**

- inflammation

**Optimize**

- fat burning and lean mass building

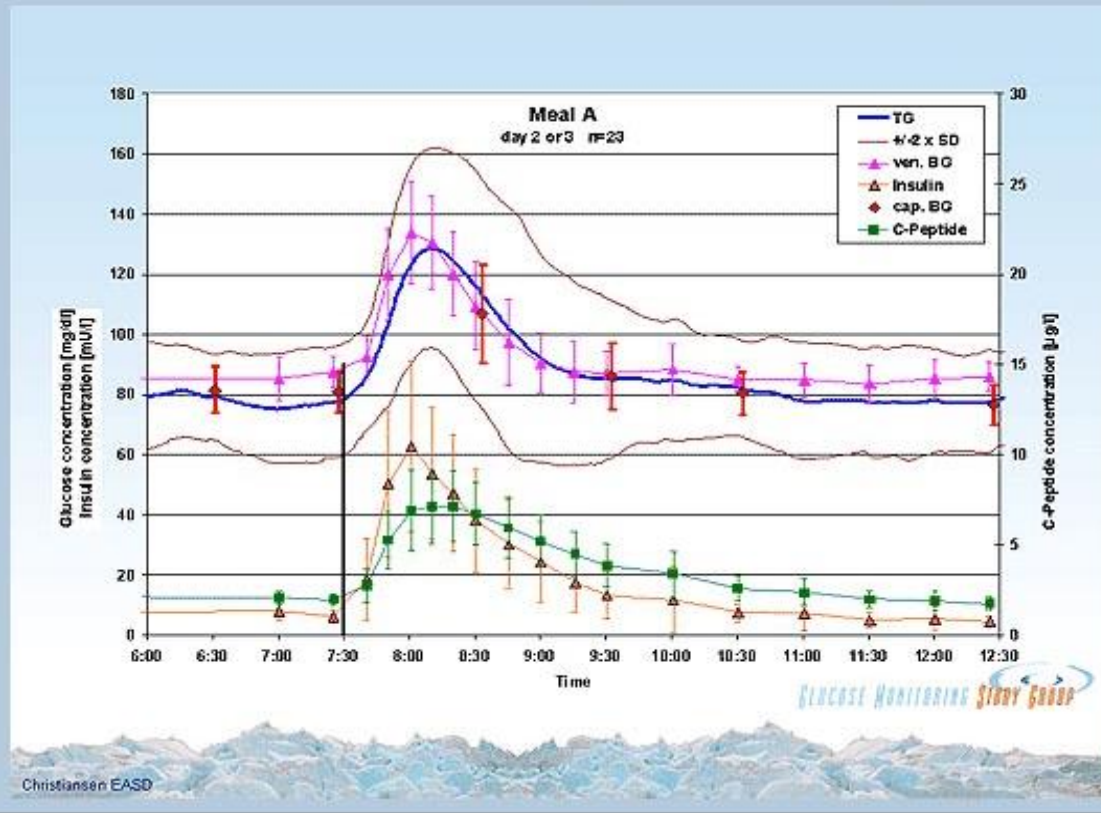
**Minimize**

- impact of “candy bar eating” effects of stress



# What is Normal Blood Sugar?

Christiansen, Prof. J. S., On the occasion of the Annual Meeting of the EASD, Copenhagen, 13-Sep-06  
What is Normal Glucose? – Continuous Glucose Monitoring Data from Healthy Subjects



## What is a Normal Blood Sugar?

Normal blood sugars after a high carbohydrate breakfast eaten at 7:30 AM. The blue line is the average for the group. The brown lines show the range within which most readings fell (2 standard deviations). Bottom lines show Insulin and C-peptide levels at the same time. **Graph is a screen shot from Dr. Christiansen's presentation cited below.**

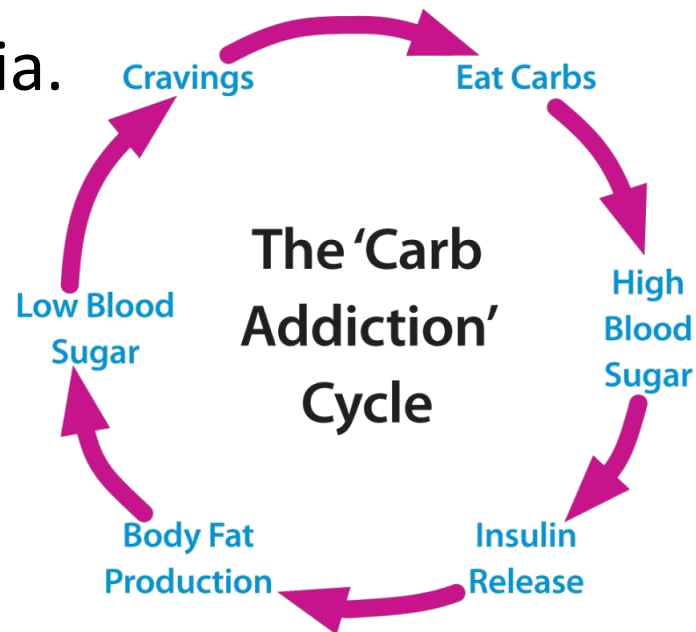
[What is Normal Glucose? Continuous Glucose Monitoring Data from Healthy Subjects.](#)

Professor J.S. Christiansen, presented at the Annual Meeting of the EASD.



# 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.



# Key Lifestyle Areas to Address



# Overview of 30-Day Plan

- ✓ Consume greens, chia seeds (or other omega-3 rich foods), and optional protein powder **within an hour of waking up.**
- ✓ Add walking or **low intensity aerobics.**
- ✓ Include **burst training** and resistance training.
- ✓ Add/experiment with a **cleansing day** (or days) each week.
- ✓ Practice **stress management.**
- ✓ Bedtime by **11:00 p.m.** (or earlier).
- ✓ Schedule **7 - 9 hours of sleep** per night.
- ✓ Consume only foods that keep sugars at **110 or below.**





# 30-Day Strict Low-Glycemic Diet

- ✓ No sugar of any kind
- ✓ No grains unless it's clear they are tolerated
- ✓ No potatoes
- ✓ No bananas or other high-glycemic fruits
- ✓ No dried fruit
- ✓ No fruit juice

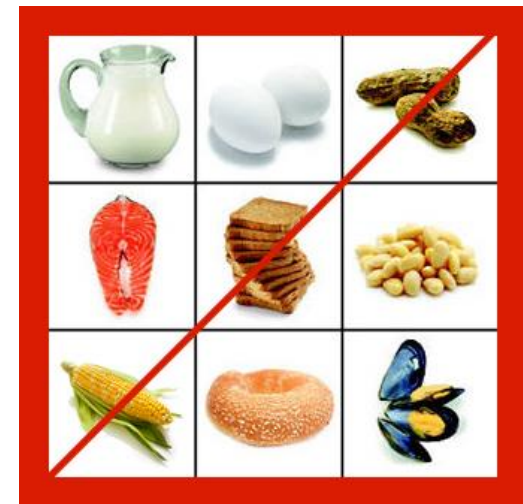


**Low-glycemic fruits in small quantities**



# Other Foods to Avoid

- ✓ Heated oils, trans-fats
- ✓ Eliminate top allergens and all known allergens
- ✓ Anything that raises blood sugar above 110



# Allergens and Potential Allergens

## Top 6 Food Allergens

Gluten

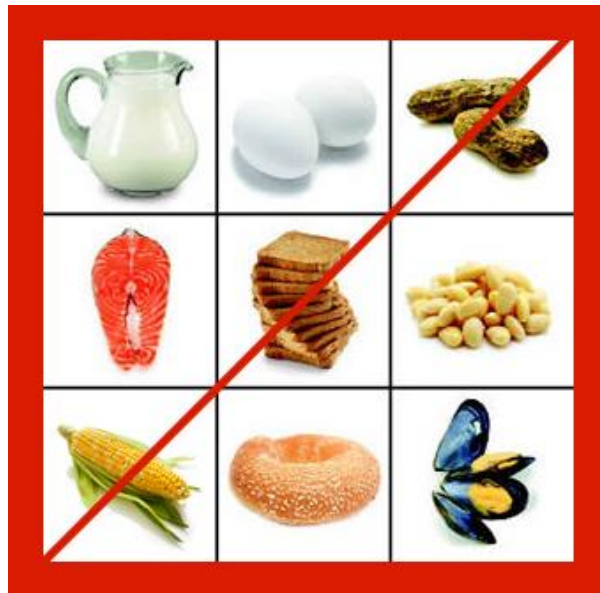
Dairy

Soy

Corn

Eggs

Peanuts



## Runners Up

Shellfish

Tree nuts

Strawberries

Citrus

Oats

Yeast



# Ready For Maintenance Phase If:

- ✓ At least 3 weeks of stable glucose
  - Under 110 and
  - Rarely, if ever, below fasting level within 2 hours or more after a meal
- ✓ Consistently taking basic supplements: Cr, Mg, DHA
- ✓ Fairly consistent on exercise, stress, sleep, and timing
- ✓ Noticing definite improvements



# Foods Best to Avoid for Life

- ✓ Sugar and all its relatives. Occasional hint of unrefined sweetener in an otherwise healthy, whole-foods dessert may be tolerable...  
Test and don't make it a habit.
- ✓ Pasteurized fruit juice.
- ✓ Flour – even whole grain. Body handles like sugar. Baked flour products contain acrylamide, a known carcinogen.
- ✓ Heated polyunsaturated oils and trans-fats – especially shortening, mayonnaise, and margarine.
- ✓ Gluten, unless you've tested and found yourself non-reactive and are asymptomatic.  
[www.enterolab.com](http://www.enterolab.com) or [www.cyrexlabs.com](http://www.cyrexlabs.com)
- ✓ All known allergens.
- ✓ Non-organically raised animal products.



# Reintroducing Fruits

- ✓ Lowest sugar to highest
- ✓ Small amounts in smoothies or with greens, i.e., on top of salads to start
- ✓ Gradually increase amounts and find your tolerance
- ✓ Go slowly to avoid insulin and glucose swings



# Ready to Start Slowly Decreasing Supplement Dosages If:

- ✓ Maintaining glucose **under 100** most of the time
- ✓ Fasting blood sugar is consistently in the **80's or 70's**
- ✓ No **dips below** **fasting** glucose level 3-5 hours after a meal
- ✓ Symptoms are **improving**



# Cornerstone Supplements

- ✓ **Chromium Polynicotinate:** 400 mcg twice a day
- ✓ **Magnesium Citrate, Glycinate, or Natural Calm:** 400 mg or to bowel tolerance
- ✓ **DHA:** 350 to 500 mg per day, preferably **algae oil based** -- review omega-3/omega-6 documents
- ✓ **Vanadyl Sulfate** (Optional): Take 50 mg twice a day, only for 4 weeks





# How to Wean Off Supplements

- ✓ Decrease by 1 capsule or drop dose every 3-4 days
- ✓ Carefully monitor fasting blood sugar and post-meal glucose (15, 30, 45, 60, 2h, 3h, 4h, 5h) on your highest glycemic meal(s)
- ✓ Weigh yourself and observe for increase
- ✓ Monitor your energy level, mental alertness, and any symptoms that resolved during the 30 days
- ✓ Observe for appetite changes and food cravings
- ✓ Continue to decrease unless contraindicated by above



# Reintroducing Potential Allergens

## ✓ Top 6 Food Allergens

Gluten

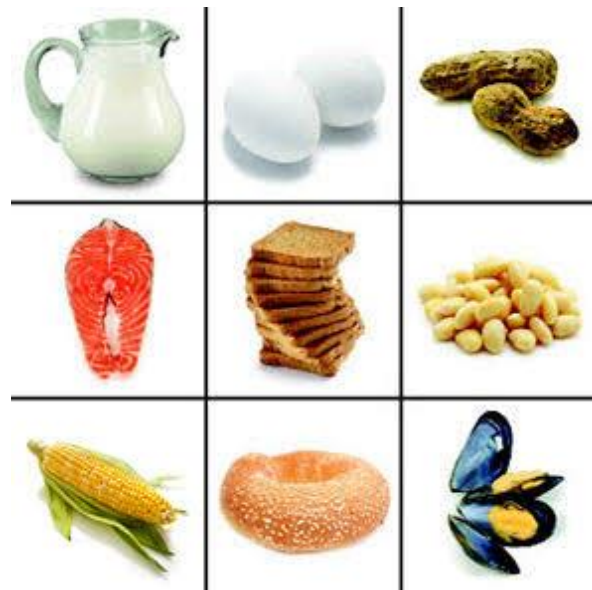
Dairy

Soy

Corn

Eggs

Peanuts



## ✓ Runners Up

Shellfish

Tree nuts

Strawberries

Citrus

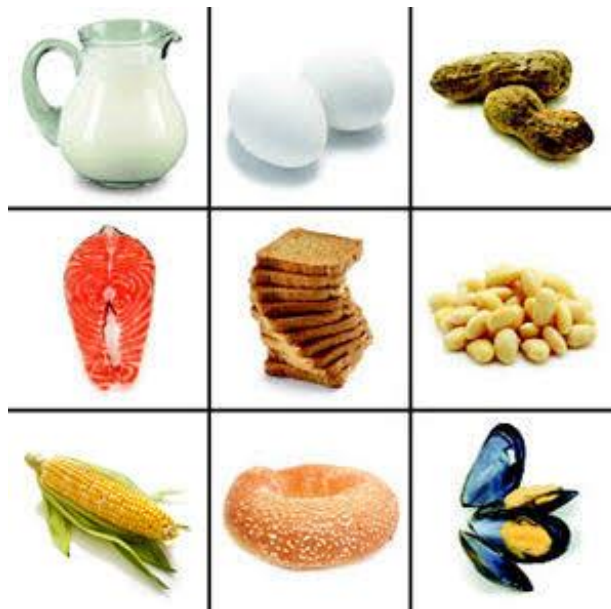
Oats

Yeast



# Reintroducing Potential Allergens

Safe	Suspicious	Problematic
Food 1	Food 3	Food 5
Food 2	Food 4	Food 6



# Fitness Guidelines Highlights



## ✓ **Short burst exercise:**

- 2 minutes first thing in the morning (daily)
- 2 minutes an hour before bedtime (daily)
- 30-second bursts throughout the day, ideally 2 hours before meals (4-8 daily, 4-5 days a week)

## ✓ **Moderate intensity aerobics** like walking, jogging, cycling, swimming, a class, or on exercise equipment (30-60 minutes, 4-5 times a week)

Walking for 10 minutes 3 times a day counts

## ✓ **Resistance exercise:** i.e., weights or body weight, see [Fitness Video Library](#) for ideas (1-3 times a week)



# Diet & Nutrition Guidelines Highlights

- ✓ Avoid **foods that require lots of insulin** to manage. Hang the *Foods to Phase Out* document on the refrigerator door.
- ✓ Avoid **gluten and other allergens**.
- ✓ Avoid foods that cause **blood sugar to go above 110**. If not testing, only eat low GI foods.
- ✓ Keep eating and drinking **lots of greens**, chia seeds, non-starchy vegetables, and healthy fats.
- ✓ Drink **half your body weight in fluid ounces** of water each day.



# Attitude & Stress Guidelines Highlights

- ✓ Practice **“Quick Coherence,”** aka **“Mini-Vacations,”** at least 5 times a day.
- ✓ Learn to **identify early** on when going into **“autopilot”** and experiencing the negative effects of stress. Use **“Freeze Frame”** to shift.
- ✓ Use the **power of appreciation** and fun to shift perspective.
- ✓ Acknowledge **accomplishments**, connect to **values and visions**, and keep eyes on the prize.



# Sleep Guidelines Highlights

- ✓ Get to **bed by 11:00 p.m.**
- ✓ Stay in bed **at least 8 hours** most nights.
- ✓ Turn down the **activity intensity** starting a **couple of hours** before bedtime:
  - Turn off the TV
  - Dim the lights
  - Get away from the computer
  - Take a warm bath
  - Listen to soft music, etc.



# Timing Guidelines Review

- ✓ Quit eating **3 hours before bedtime** to optimize growth hormone and promote fat burning while you sleep.
- ✓ “Burst and Burn” before bed: About 2 hours after your last meal of the day and at least 1 hour before bed, do a **2-minute burst of high intensity exercise**.
- ✓ Extend the time between your meals to **5 hours**.
- ✓ Consume **protein within an hour of waking**.
- ✓ Avoid high-carbohydrate breakfasts – Morning carb overdoses cause a premature spike in leptin and **food cravings**.
- ✓ Practice **breathing and appreciation** before your meals.
- ✓ Commit to getting to **sleep no later than 11:00 p.m.**
- ✓ Plan **fitness bursts** 2 hours before each meal.





Foods to Consume Regularly			Use Only if Sugar Stays < 110	Foods to Avoid		
<p><b>Unlimited Non-Starchy Vegetables</b> <i>Raw or cooked</i></p> <ul style="list-style-type: none"> <li>• Broccoli</li> <li>• Cauliflower</li> <li>• Kale</li> <li>• Chard</li> <li>• Spinach</li> <li>• Bok Choy</li> <li>• Cabbage</li> <li>• Collard greens</li> <li>• Arugula</li> <li>• Lettuce</li> <li>• Celery</li> <li>• Cucumber</li> <li>• Peppers</li> <li>• Jicama</li> <li>• Radish</li> <li>• Tomato</li> <li>• Sprouts</li> <li>• Herbs</li> <li>• All other non-starchy vegetables</li> </ul> <p>Konjac noodles Kelp noodles</p> <p><b>** All foods in 30 day menu plan are allowed</b></p>	<p><b>Moderate Amounts</b> <i>Watch omega-6:3 ratio and saturated fat</i></p> <ul style="list-style-type: none"> <li>• Chia</li> <li>• Flax</li> <li>• Hemp</li> <li>• Sunflower</li> <li>• Pumpkin</li> <li>• Sesame</li> <li>• Almond</li> <li>• Cashew</li> <li>• Macadamia</li> <li>• Brazil</li> <li>• Pecan</li> <li>• Walnut</li> <li>• Coconut</li> <li>• Filbert (hazelnut)</li> <li>• Pinenut</li> <li>• Avocado</li> <li>• Other raw nuts and seeds</li> </ul> <p><b>Animal Foods</b> <i>(optional)</i></p> <ul style="list-style-type: none"> <li>• Organic, free-range, pastured or wild lean meat (3 oz )</li> <li>• Deep ocean fish (limit to 1-2 times a week, 3 ounce serving)</li> </ul>	<p><b>Include Often</b> <i>to help blood sugar regulation</i></p> <ul style="list-style-type: none"> <li>• Fenugreek</li> <li>• Maitake mushroom:</li> <li>• Bitter melon</li> <li>• Basil:</li> <li>• Alfalfa</li> <li>• Algae and seaweed</li> <li>• Avocado</li> <li>• Bitter melon</li> <li>• Blueberries</li> <li>• Broccoli</li> <li>• Bussels sprouts</li> <li>• Cabbage</li> <li>• Cardamom</li> <li>• Carob</li> <li>• Cinnamon</li> <li>• Citrus peel extract</li> <li>• Cucumber</li> <li>• Garlic</li> <li>• Ginger</li> <li>• Greens</li> <li>• Jerusalem artichoke</li> <li>• Onion</li> <li>• Prickly pear or Nopal cactus –</li> <li>• Stevia</li> <li>• Turmeric</li> </ul>	<p><b>Gluten-Free Grains</b></p> <ul style="list-style-type: none"> <li>• Quinoa</li> <li>• Teff</li> <li>• Millet</li> <li>• Buckwheat</li> <li>• Brown rice</li> <li>• Wild rice</li> </ul> <p><b>Legumes</b></p> <ul style="list-style-type: none"> <li>• Lentils</li> <li>• Peas</li> <li>• Mung beans</li> <li>• Adzuki beans</li> <li>• Black beans</li> <li>• Kidney beans</li> <li>• Pinto beans</li> <li>• White beans</li> <li>• Red beans</li> </ul> <p><b>Low-Glycemic Fresh Fruits</b> <i>Best eaten with greens in smoothies or salads</i></p> <ul style="list-style-type: none"> <li>• Blueberry</li> <li>• Strawberry</li> <li>• Blackberry</li> <li>• Raspberry</li> <li>• Other berries</li> <li>• Green Apples</li> </ul> <p><b>Starchy Vegetables</b></p> <ul style="list-style-type: none"> <li>• Carrot</li> <li>• Parsnip</li> <li>• Turnip</li> <li>• Rutabaga</li> <li>• Sweet potato</li> <li>• Yam</li> <li>• Beets</li> </ul>	<p><b>Processed Foods</b></p> <ul style="list-style-type: none"> <li>• White sugar</li> <li>• High-fructose corn syrup</li> <li>• "Whole" sweeteners: honey, maple syrup, raw dehydrated cane juice, agave</li> <li>• Alcohol</li> <li>• Coffee</li> <li>• Hydrogenated oils</li> <li>• Processed polyunsaturated oils (they come in glass jars and are already oxidized)</li> <li>• Mayonnaise</li> <li>• Margarine</li> <li>• Shortening</li> <li>• Deep fried food</li> </ul>	<p><b>High-Glycemic Foods</b></p> <ul style="list-style-type: none"> <li>• Flour and flour products – crackers, bread, pasta etc. (avoid even if whole grain)</li> <li>• Grains unless tested and blood sugar stays below 110</li> <li>• Legumes unless tested and blood sugar stays below 110</li> <li>• White potato</li> <li>• Yellow potato</li> <li>• Starchy vegetables unless tested and blood sugar stays below 110</li> </ul> <p><b>Allergens</b></p> <ul style="list-style-type: none"> <li>• Gluten</li> <li>• Dairy</li> <li>• Corn</li> <li>• Eggs</li> <li>• Soy</li> <li>• Peanuts</li> <li>• Your personal allergens</li> <li>• Commercial animal products</li> </ul>	<p><b>Medium and High-Glycemic Fruits</b></p> <ul style="list-style-type: none"> <li>• Banana</li> <li>• Pears</li> <li>• Plums</li> <li>• Peaches</li> <li>• Apricots</li> <li>• Pineapple</li> <li>• Mango</li> <li>• Papaya</li> <li>• Pomegranate</li> <li>• Guava</li> <li>• Passion fruit</li> <li>• Star fruit</li> <li>• Cherimoya</li> <li>• Persimmon</li> </ul> <p><b>Dried Fruit</b></p> <ul style="list-style-type: none"> <li>• Prunes</li> <li>• Dates</li> <li>• Raisins</li> <li>• Goji Berry</li> <li>• Others</li> </ul> <p><b>Fruit Juice – Fresh or Pasteurized</b></p>

# Food Chart to Maintain Good Glucose Balance

YES		TEST Blood Glucose and Use Cautiously			NO	
Unlimited Non-Starchy Vegetables <i>Raw or cooked</i>	Moderate Amounts <i>Watch omega-6:3 ratio and saturated fat</i>	Fruits <i>Best eaten with greens in smoothies or salads</i>	Starchy Vegetables <i>Raw or cooked</i>	Gluten-Free Grains and Legumes <i>Sprouted or cooked</i>	NEVER	Tiny Amounts on Rare Occasion <i>(Only if no rise in blood glucose)</i>
<ul style="list-style-type: none"> <li>• Broccoli</li> <li>• Cauliflower</li> <li>• Kale</li> <li>• Chard</li> <li>• Spinach</li> <li>• Bok Choy</li> <li>• Cabbage</li> <li>• Collard greens</li> <li>• Arugula</li> <li>• Lettuce</li> <li>• Celery</li> <li>• Cucumber</li> <li>• Peppers</li> <li>• Jicama</li> <li>• Radish</li> <li>• Tomato</li> <li>• Sprouts</li> <li>• Herbs</li> <li>• All other non-starchy vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• Chia</li> <li>• Flax</li> <li>• Hemp</li> <li>• Sunflower</li> <li>• Pumpkin</li> <li>• Sesame</li> <li>• Almond</li> <li>• Cashew</li> <li>• Macadamia</li> <li>• Brazil</li> <li>• Pecan</li> <li>• Walnut</li> <li>• Coconut</li> <li>• Filbert (hazelnut)</li> <li>• Pinenut</li> <li>• Avocado</li> <li>• Other raw nuts and seeds</li> <li>• <b>Animal Foods</b> <i>(optional)</i></li> <li>• Organic, free-range, pastured or wild lean meat (3 oz)</li> <li>• Deep ocean fish <i>(limit to 1-2 times a week, 3 ounce serving)</i></li> </ul>	<p><b>Fresh Fruits</b></p> <ul style="list-style-type: none"> <li>• Blueberry</li> <li>• Strawberry</li> <li>• Blackberry</li> <li>• Raspberry</li> <li>• Other berries</li> <li>• Apples</li> <li>• Pears</li> <li>• Plums</li> <li>• Peaches</li> <li>• Apricots</li> <li>• Pineapple</li> <li>• Mango</li> <li>• Papaya</li> <li>• Pomegranate</li> <li>• Guava</li> <li>• Passion fruit</li> <li>• Star fruit</li> <li>• Cherimoya</li> <li>• Persimmon</li> </ul> <p><b>Dried Fruits</b> <i>(caution - not alone)</i></p> <ul style="list-style-type: none"> <li>• Prunes</li> <li>• Dates</li> <li>• Raisins</li> <li>• Goji Berry</li> <li>• Others</li> </ul>	<ul style="list-style-type: none"> <li>• Carrot</li> <li>• Parsnip</li> <li>• Turnip</li> <li>• Rutabaga</li> <li>• Sweet potato</li> <li>• Yam</li> <li>• Beets</li> </ul> <p><b>Caution and Small Quantities</b></p> <ul style="list-style-type: none"> <li>• White potato</li> <li>• Yellow potato</li> </ul>	<ul style="list-style-type: none"> <li>• Quinoa</li> <li>• Teff</li> <li>• Millet</li> <li>• Buckwheat</li> <li>• Brown rice</li> <li>• Wild rice</li> <li>• Corn</li> <li>• Lentils</li> <li>• Peas</li> <li>• Mung beans</li> <li>• Adzuki beans</li> <li>• Black beans</li> <li>• Kidney beans</li> <li>• Pinto beans</li> <li>• White beans</li> <li>• Red beans</li> </ul>	<ul style="list-style-type: none"> <li>• White sugar</li> <li>• High-fructose corn syrup</li> <li>• Hydrogenated oils</li> <li>• Processed polyunsaturated oils <i>(they come in glass jars and are already oxidized)</i></li> <li>• Mayonnaise</li> <li>• Margarine</li> <li>• Shortening</li> <li>• Deep fried food</li> <li>• Pasteurized fruit juice</li> <li>• Refined flour</li> <li>• Refined grains <i>(i.e. white rice)</i></li> <li>• Gluten unless tested <i>(via enterolabs.com or cyrexlabs.com)</i></li> <li>• Commercial animal products</li> </ul>	<ul style="list-style-type: none"> <li>• "Whole" sweeteners: honey, maple syrup, raw dehydrated cane juice, agave</li> <li>• Whole grain, unrefined flour products, non-gluten</li> <li>• Fresh fruit juice in combination with vegetable juice or in a vegetable-based dish</li> <li>• Small amount of vegetable oil in a big stir-fry, on occasion when out</li> </ul>

