A Holistic Approach to Weight Loss and Better Health

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Four Part Series

Week 1: Insulin and Inflammation
Week 2: Leaky Gut and the Gut Biome
Week 3: Sleep and Circadian Rhythms
Week 4: Stress Response- Hypnosis Experience
Reduce poor quality, processed, carbohydrate-dense foods

- Added Sugar
- Grain-based flour e.g. breads, cereal grains, pasta, pastries, desserts, chips, pretzels, granola bars.
- Higher Fructose Fruits e.g. bananas, grapes, pears
- Dried fruits e.g. raisins, apricots, cherries
- Sweetened soft drinks
- Beer is liquid bread
- Gradual reintroduction of starchy vegetables after 8-12 weeks, e.g. white rice, carrots, parsnips, white potatoes
- Lowered insulin and reduced inflammation “unlock” fat burning
More fat of better quality

- Reduce omega 6 vegetable oils e.g. corn, canola, soybean, sunflower
- Eliminate trans fats found mostly in packaged desserts
- More abundant healthy fat sources e.g. eggs, butter, full-fat dairy, nuts (macadamia, walnuts, pecans, walnuts), fatty fish e.g. salmon, sardines, trout, maceral, anchovies; grass fed meats, shellfish, avocados, extra virgin olive oil, coconut oil, ghee, macadamia nut oil, avocado oil
Plant-based foods

- Fill half of plate with vegetables
- 2 cups greens/day is a nice goal
- Cruciferous e.g. broccoli, cauliflower, collards, cabbage, kale, spinach, asparagus, romaine lettuce, arugula
- Allium family e.g. onions, leeks, garlic
- Beans and lentils; soaking and pressure cooking can be easier on the gut, reducing lectins
- Lower glycemic fruits e.g. berries, grapefruit, kiwi
- Anti-inflammatory spices e.g. turmeric, basil, ginger, rosemary, cayenne pepper
- Fermentable Fiber essential for gut biome diversity
- Fermentable foods e.g. yogurt, sauerkraut
Time-Restricted Eating: TRE

- 10-hour window  e.g. 8a – 6p
- Resets circadian rhythms, improving metabolic efficiency
- Try to refrain from eating 2-3 hours before bedtime
- Effective for weight loss
- Improves metabolic risk factors
- Reduction in recurrence of breast cancer
Gastrointestinal Balance: Managing Leaky Gut
The Origins of Health
Systems Biology

Disease (how things appear)
Pre-diabetes, Diabetes, Weight, HBP, Lipids, Heart Disease, Stroke, Depression, Autoimmunity, Arthritis, Alzheimer’s, Cancer, Fibromyalgia, Chronic fatigue

Core Metabolic Imbalances (what drives them)
Inflammation
Insulin Resistance
Gut-Barrier Function/Microbiome
Circadian Entrainment
Stress Response

Root Causes (what are their origins)
Environment+Epigenome/genes+Microbiome
Nutrition Movement Stress Response Environmental toxins
Sleep Social Connection Trauma Conflict Management
Forgiveness Mindfulness Spirituality-Meaning Medications
Light quality-entrainment

Berkshire Health Systems
“About 75% off the food in the Western diet is of limited or no benefit to the microbiota in the lower gut. Most of it, comprised specifically of refined carbohydrates, is already absorbed in the upper part of the GI tract, and what eventually reaches the large intestine is of limited value, as it contains only small amounts of the minerals, vitamins and other nutrients necessary for maintenance of the microbiota.”

– Nutrients 2013, 5, 162-207; doi: 10.3390/nu5010162
The gut as an ecosystem

- Over 1,000 species of bugs
- 3+ lbs of bacteria
- Gut “flora” when in balance facilitate:
  - digestion
  - detoxification
  - production of vitamins
  - produce healing metabolites
  - regulate hormones
  - Regulation of inflammation
Leaky Gut = Inflammation

LEAKY GUT SYNDROME

Small intestine

Microscopic view of mucosal membrane cells

Undigested food particles, toxins and bacteria

Faulty tight junction

Healthy tight junction

Basement Membrane

Blood stream
I = intestinal Gland  M = Mucosa  
S = Submucosa
Problems with gut health can promote/worsen...

- Allergy
- Weight Gain
- Asthma
- Autoimmunity
- Arthritis
- Metabolic Bone disease
- Skin problems
- Mood disorders
- Dementia
- Cancer
- Inflammation
Common causes of “leaky gut”

- SAD: Carbohydrate dense, high-sugar, low-fiber, processed diet;
- Overuse of medications such as NSAIDs, antibiotics, PPIs acid blockers, steroids e.g. prednisone, chemotherapy
- Food sensitivities – allergies e.g. gluten and casein
- Low-grade bug imbalances (dysbiosis) involving yeast, bacterial overgrowth (SIBO)
- Toxins e.g. BPA, phthalates, pesticide residues, glyphosate (GMO)
- Stress or the brain-gut connection
- Alcohol
Stress and the gut

- Activation of Fight – Flight Response
  - Increase in gut permeability
  - Increase in inflammation
  - Changes in GI motor function
  - Changes in gut flora
Starving our Microbial Self:
The Deleterious Consequences of a Diet Deficient in Microbiota-Accessible Carbohydrates

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The gut microbiota of a healthy person Western microbiota is actually dysbiotic. Metric plasticity between the relatively suggests that incompatibilities between the low in microbiota-accessible carbohydrates and functionality compared to those of microbes and host leading to immunity as a common basis. The low-MAC Western lifestyle, which includes a diet with short-chain fatty acids (SCFAs), which models. Studies focused on modern attempts to characterize the connection between an optimal microbiota, one that increases be required to further understand both microbiota dysbiosis. It is possible that the gut microbiota plays a role in the development of a variety of diseases. The asymptomatic more malleable gut microbiome suggests that interactions between the resident microbiota and host, which are involved in inflammation, may contribute to the development of chronic diseases. Differentiating between causative or potentiates disease will be required to further understand both the healthy and unhealthy microbiota. The gut.
Noteworthy contributions to alterations of the human microbiome

- Dietary changes e.g. refined, processed simple starches and sugars “carbohydrate-dense” foods
- C-sections
- Formula feeding
- Marked decreases in fermentable fiber
- Antibiotic use in prescriptions and in industrialized foods
- Glyphosate as an anti-microbial
- Hygiene hypothesis
- Prior GI infections; H. pylori; systemic infections SIBO-small intestinal bacterial overgrowth
- Medications e.g. PPIs, steroids, chemotherapy
Sugar, Fructose and Carbohydrate-Dense Grains e.g. flour

Inflammation
Altered neurotransmitters
Insulin Resistance
Weight and Metabolism
Mitochondria-Oxidative stress
HPA axis – Stress Response

Oral and Gut Microbiome

Protection from:
Inflammation
Diabetes
Cancer
Obesity

High-Quality Plant-Based Carbs
The 5 R’s

Remove
Foods
Stress
Toxins

Rebalance
Lifestyle

Replace
Digestive
Factors

Repair
Healing foods,
Dietary
supplements

Repopulate
Pre & Probiotics
Elimination Diet

- A trial and response method of identifying foods that cause an adverse reaction;
- Involves a systematic avoidance and reintroduction process;
- Many different types and should be personalized based on nutrition assessment.

• Foods that one may be intolerant to (elimination diet: start with gluten containing grains and dairy).
• Medications that may negatively influence an optimal GI environment (such as PPIs, H2 blockers, NSAIDs, antibiotics, steroids).
• Stress: how we interpret and respond
• Small intestinal bacterial overgrowth: Breath test
For persistent dyspepsia, indigestion, or **long-term use of stomach acid suppression** consider digestive enzymes to promote better macronutrient breakdown. These are usually plant-based (papaya, pineapple) compounds e.g. bromelain taken with each meal.
Re-populate

- Administer probiotics from the following three families that have been found to be beneficial for GI function: Bifidobacteria, Lactobacilli, and Saccharomyces.
- Administer prebiotics (food that promotes beneficial bacterial growth) such as vegetables, low-glycemic fruits
- Fermented foods
Repair…nutritionally

- Eat whole, fresh, unprocessed foods-seasonal, organic, and local
- Bone broth
- Fiber supports gut flora
- Avoid common food allergens
- Eat foods that taste good and allow your taste buds time to get used to new foods
- Eat in rhythm with meals scheduled at regular intervals throughout the day
- Eat in a mindful, relaxed state
- Eat foods YOU prepare
Supplements with some supportive research

- For GERD Aloe Vera juice – 3 oz. twice daily
- For GERD: dgl-Licorice for GERD – 500mg chewtabs with meals
- Digestive enzymes – 1-2 caps with meals
- Glucomannan 2,000 mg caps (3 caps with 6-8 oz water½ hour before largest meal) or Acacia Gum (prebiotics)
- Thrive probiotics: 1/day with bkfst
- Zinc carnosine 15-30 mg daily
- Vitamin D: 2,000 – 4,000 u/day to keep levels 30-50
Continuous Self-Improvement  PDSA Cycle

**ACT**
- Make another small change

**PLAN**
- Plan your small change

**STUDY**
- What impact did this small change have?

**DO**
- Implement this small change

- Lose 10 lbs
- Improve my BP
- Take 1 – less medication

- Reduce sweetened soft drinks by 1/day
- Take 2,000 more steps/day

- Measure waist circumference
- Measure weight
- Monitor BP changes

- Cut out 2 portions of sugar/flour
- Eat 2 more servings of greens/day
- Add 1 more healthy fat source
Thank You !
Impact of the gut microbiota on inflammation, obesity, and metabolic disease

Genome Medicine 2016:42