

Introduction to Paleolithic Nutrition

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Agenda

- Snapshot of our nation's health
- Our ancestral legacy
- Neolithic foods
 - Insulin & Inflammation
 - Grains
 - Legumes
 - Refined vegetable oils
 - Sugar
 - Dairy
- Other lifestyle factors
- Where to start



Snapshot of Our Nation's Health



From the Centers for Disease Control (CDC) ...

Overweight/Obesity

- 34% of adults are overweight
- An additional 34% are obese

Cardiovascular Disease

- Leading cause of death – 4 out of every 10 deaths are due to CVD
- Rates expected to double in the next 50 years

Diabetes

- 8.3% of the population (25.8M children and adults) have it
- An estimated 79M are prediabetic
- 1/3 of people born in 2010 will develop it in their lives

Dementia

- 14% aged 71+ have dementia (3.5M Americans)
- 2.5M of those have Alzheimer's

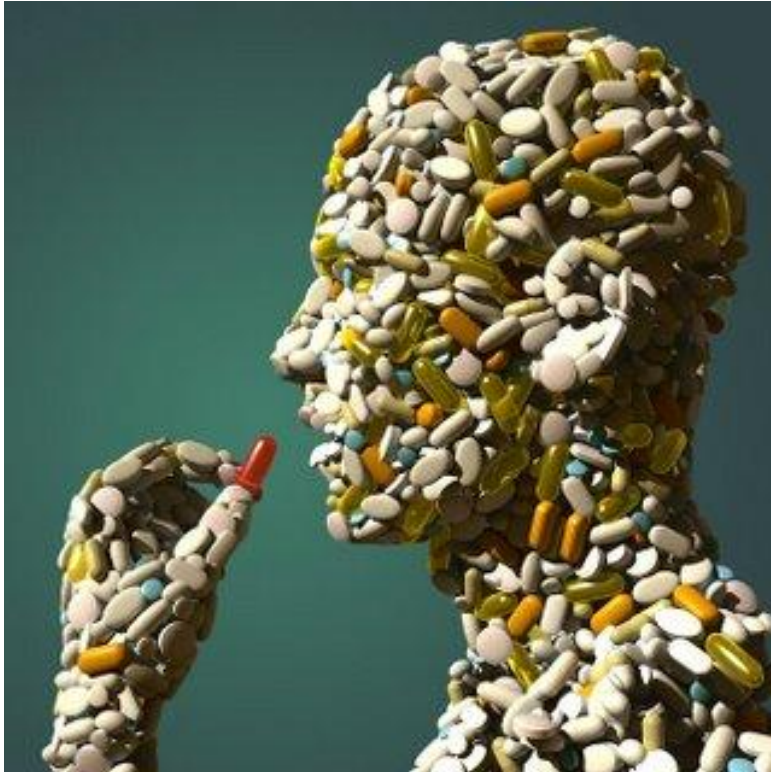
Cancer

- 2nd leading cause of death with 569,000 expected – 1,500 a day
- Est. 11.4M living with cancer

Infertility

- 12% of women (11.3M) received infertility services
- Rates of infertility expected to double in the next decade

From the National Center of Health Statistics ...



- 2M people suffer from adverse drug reactions and other errors annually
- 1M deaths caused by these reactions and errors
- 1,500 companies in the U.S. manufacture and market medicinal drugs, with a combined annual revenue of \$200B
- 20M people unnecessarily prescribed antibiotics annually

But what if all these modern diseases are actually related? Can we fix the cause through lifestyle changes?

Words to Eat By

**“Let food be thy
medicine and let thy
medicine be food.”**
-Hippocrates

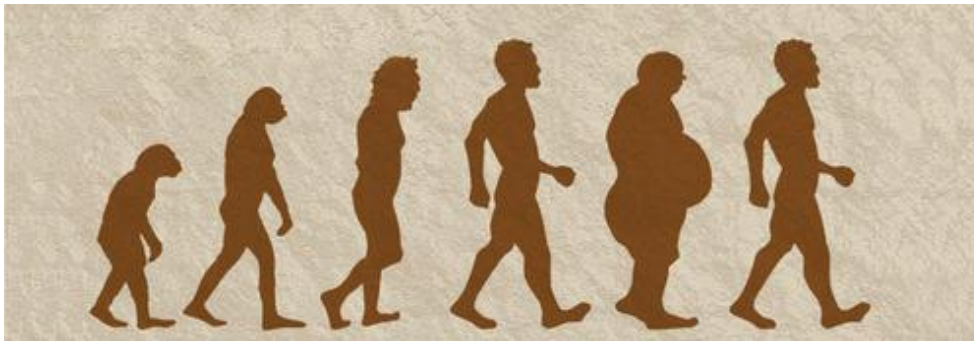
**“If fifty million people
say a foolish thing, it is
still a foolish thing.”**
- Anatole France

Our Ancestral Legacy



The Paleolithic Age

- The Paleolithic Age covers roughly 99% of human technological prehistory, extending from the earliest known use of stone tools 2.6M years ago to roughly 10,000 years ago, when humans began to harvest crops and domesticate animals.
- Fossil records and studies of modern hunter-gatherer societies indicate long lives free of disease for those who avoided accidents and other misfortune.
- Our DNA is nearly identical to our primal ancestors.



Neolithic Foods



It's all about the Insulin

- Hormone secreted by pancreas to remove glucose from the bloodstream and send to cells for use as energy
- Excess glucose converted to triglycerides and sent to fat cells
- Insulin inhibits glucagon – the hormone that accesses nutrients from the cells for use as energy
- Chronically elevated insulin eventually leads to insulin resistance
- Excessive insulin is a central catalyst of atherosclerosis
- Also inhibits sex hormones



The Invasion of the Baby Boomers!
Diagnosed with Adult Onset Diabetes.

© 2008 Diabetes Health

AND, it's all about Inflammation, too

- A desirable response to pain, injury and infection; quarantines damage from trauma instead of letting toxins run wild in the bloodstream
- Chronic stress, imbalanced diet/exercise cause systemic inflammation; body thinks it's under assault and the disease process begins
- When gut flora and the gut barrier are impaired, you will be inflamed.
 - ★ Inflammation leads to the development of autoimmunity: manifesting in heart failure, depression, brain fog, skin conditions, metabolic problems, allergies, asthma, etc.
- Repair the gut by removing all food toxins, taking a high-quality multi-strain probiotic, and managing your stress

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**"This simplifies things! Each serving contains
10 grams of 'stuff that will kill you' and
15 grams of 'stuff that won't kill you'."**

Dietary Toxins

Toxins are not just chemicals, pesticides and pollutants. A toxin is really anything capable of damaging tissue or causing disease when it enters the body.

Worst offenders:

- **Cereal grains** (wheat, corn, rice, barley, oats, etc.)
- **Seed oils** (corn, cottonseed, safflower, soybean, etc.)
- **Sugar**
- **Soy** (soy milk, soy protein, soybeans, etc.)



Grains

- **Inordinate insulin response** > elicits help from adrenaline and cortisol > taxes adrenal system / immune system > inflammation
 - **Anti-nutrients: lectins, gluten, phytates**
 - ★ **Lectins** - large proteins not broken down during digestion; transported intact through intestinal lining; body attacks, making antibodies against it; but they look like proteins.
 - Leaky gut = autoimmunity, chemical sensitivities, food allergies, several cancers
 - ★ **Gluten** causes inflammation (dermatitis, joint pain, reproductive difficulty, acid reflux, autoimmunity)
 - ★ **Phytates** bind to metal ions (calcium, magnesium, zinc, iron, copper) making them bio-unavailable
 - Osteoporosis, iron deficiency, fatigue, heart problems



Legumes

Includes alfalfa, beans, peanuts, peas, lentils and soybeans

- **Same excessive carbohydrate load and insulin response as grains**
 - ★ Remember, elevated insulin leads to inflammation and fat storage
- **Same pesky lectins**
 - ★ Large, intact proteins > leaky gut > autoimmunity, chemical sensitivities, food allergies, some cancers
- **Soy is particularly toxic**
 - ★ Phytoestrogens disrupt endocrine function; linked to thyroid disease and cancer; can cause infertility in males and promote breast cancer in women
 - ★ Phytates inhibit mineral absorption
 - ★ MSG, a potent neurotoxin, formed during soy food processing



Refined Oils

Industrial seed oils (corn, cottonseed, soybean, safflower, sunflower, etc.) are extremely new to the human diet, and not the “heart-healthy” alternatives to saturated fat they are made out to be by the American Heart Association and American Dietetic Association.

- Extremely high in omega-6 polyunsaturated fat
 - ★ As is the meat of grain-fed, feedlot animals
- Ancestral ratios of n-6 to n-3 fat were 1:1 or 2:1. Ratios today are between 16-20:1 – HIGHLY inflammatory proportions
- Americans get almost 20% of total calories from a single food source – soybean oil (USDA)
- Eliminating processed/fried foods takes care of most of them
- Use coconut oil, olive oil, butter/ghee and animal fats for cooking



Sugar

- **Sucrose:** table sugar (glucose + fructose)
 - ★ Honey has similar effect on blood glucose levels
- **Glucose:** important nutrient, rapidly absorbed into cells
- **Fructose:** primary sugar in fruits/vegetables; shunted to liver and converted to triglycerides (fat)
 - ★ HFCS: derived from corn, not fruit; increased risk of obesity, T2 diabetes, metabolic syndrome and non-alcoholic fatty liver disease
 - ★ Agave nectar has higher fructose concentration than HFCS
- **Chemical sweeteners:** aspartame, saccharin, stevia, sucralose
 - ★ Elicit an insulin response and body sends unidentifiable “toxins” to fat stores
 - ★ Some research suggests that because there was no energy associated with that insulin spike, your brain is signaled to crave more sugar



And, a word about Dairy

- **Lactose:** Most of us stop producing the lactase enzyme after age 3-4. Elicits insulin response as high as white bread and cookies.
 - ★ Raw dairy contains lactase, but is illegal for human consumption in FL
 - ★ Fermented dairy like yogurt, kefir and cheese have very little lactose; likewise, butter and ghee are nearly all fat
- **Casein:** Protein that can stimulate celiac, Crohn's, IBS, asthma, and possibly autism
- **High-temperature processing:** Kills good bacteria, vitamins and enzymes
- **Excessive calcium:** Hampers ability to absorb magnesium b/c they compete on the same absorption pathway
- **Acidic:** Hampers calcium absorption

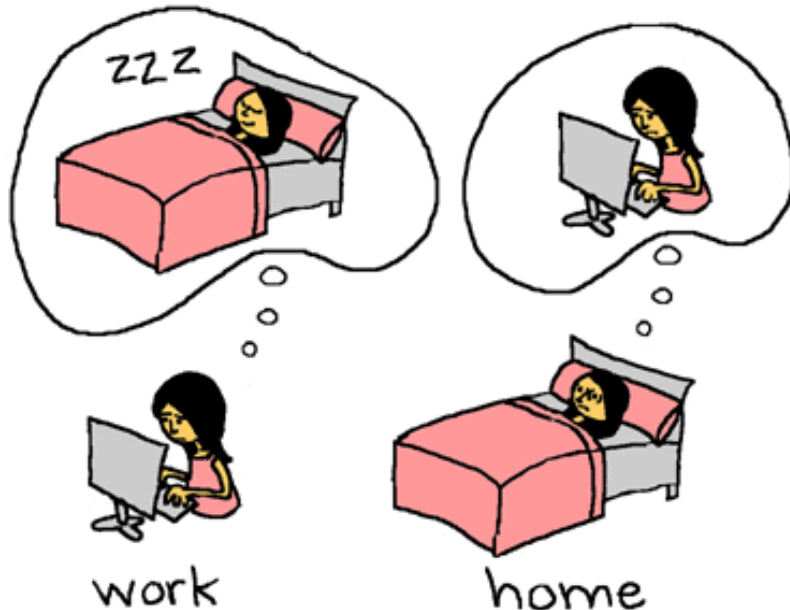


Other Lifestyle Factors



Sleep & Stress

- Ancestral stressors were acute: short in duration and infrequent. Modern stress is lower-level but chronic.
- Cortisol should be high when we need energy and low at bedtime. Ours is elevated all day.
 - ★ Results are similar to those of a high-carb diet: fat storage, forgetfulness, low sex drive, compromised immune system, decreased insulin sensitivity
 - ★ Sleep affects inflammation as powerfully as food



- Black out your room – even with closed eyes, your brain senses natural and LED light and melatonin is blocked
- Get enough sleep that you do not need an alarm clock. Seriously.
 - ★ For most people, this is 8 – 9.5 hrs.

Activity/Exercise

- **Move frequently at a slow pace:** this is your daily life
 - ★ Walking, biking, gardening, helping friends move, taking the stairs
 - ★ Reduces stress, increases VitD from the sun, provides a foundation for more strenuous activity
- **Lift heavy things:** functional movements, constantly varied
 - ★ Increase energy levels, stimulates adaptive hormones that improve body composition and delay aging
- **Sprint occasionally:** this is high-intensity, performed in intervals
 - ★ Study: Group performing 8-second sprint intervals had reduction in body fat and blood glucose levels after 15 weeks. Long-slow-distance “cardio” group did not.
 - ★ Burns both glucose and fatty acids and the stimulus lasts several days



Where to Start



Don't Be Scared and Confused

But do be brave ...

- Commit to trying this for 30 days and see how your life changes
- Ever seen What Not to Wear? Clean out your kitchen. If you can't stomach the idea of throwing it out, donate to a food pantry.
 - ★ Toss all processed food: pasta, cereal, rice, bottled dressings/marinades, seed oils, ice cream, crackers, cookies, cake mix, canned soup, you name it.
- Make a meal plan, go to the grocery store, wash and cut up your produce, and ask for help from kids/spouses
 - ★ Buy meat/seafood, omega-3 enriched eggs, gluten/soy-free jerky, vegetables, fruit, coconut oil, coconut milk, olive oil, nuts, almond butter, pastured butter, as many spices as you can get your hands on

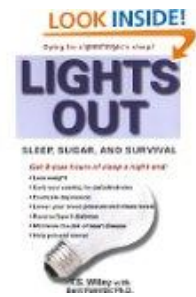
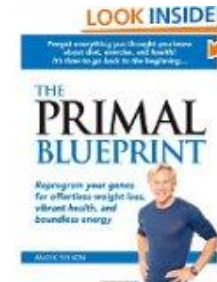
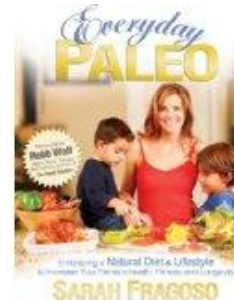
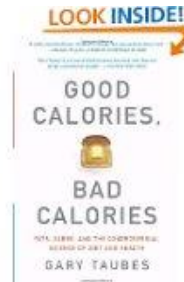
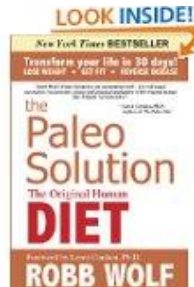
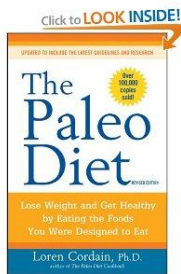


Resources



Recommended Reading

Books



Blogs/Podcasts

- <http://stpetecrossfit.com>
- www.robbwolf.com
- www.marksdailyapple.com
- www.balancedbites.com
- www.everydaypaleo.com
- <http://thehealthyskeptic.org>

THANK YOU!

