

Why Organic Vegetables?

How organic produce supports wellness and builds a healthy world.

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In the beginning

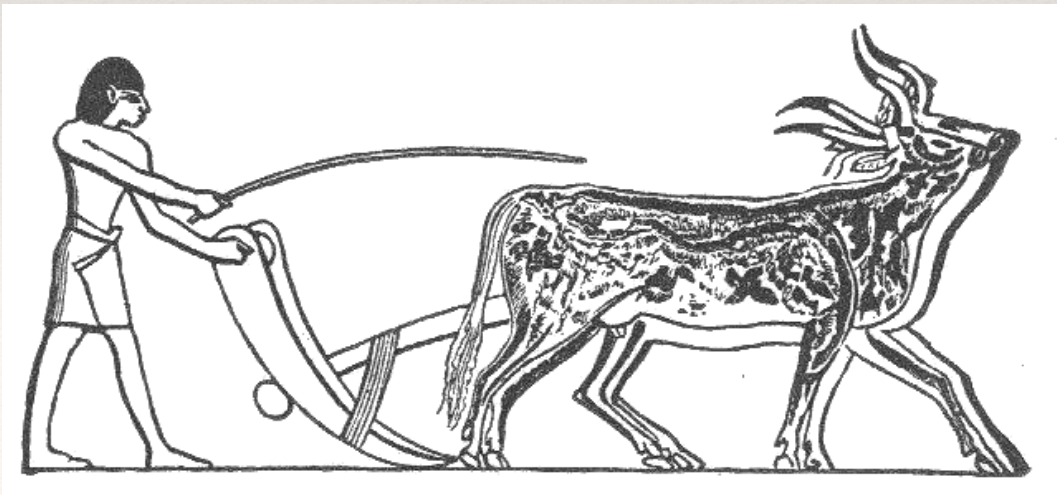


- ❖ **Nature = balance**
- ❖ **Hunter-gatherers consumed a wide variety of animals and plants to thrive**

10,000 years ago

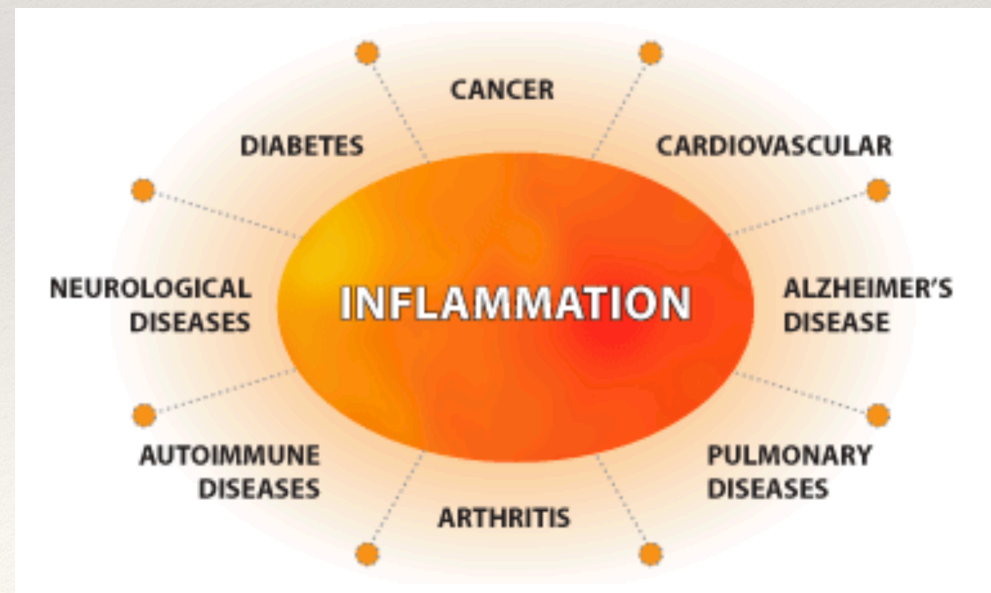
- ❖ The beginnings of agriculture and the domestication of animals
- ❖ Cultivation of grains increased
- ❖ Chronic disease increased

Science, 2011. J. Comp. Human Biology, 2009



What Is Chronic Disease?

- ❖ Alzheimer's, cancer, heart disease, diabetes, arthritis, autoimmune conditions...
- ❖ All have **inflammation** in common
- ❖ Correlates with low nutrient density and low antioxidant intakes
- ❖ Not enough nutrients
to finish the healing process



What Are Antioxidants?

- ❖ **Compounds that reduce or prevent damage to our cells by neutralizing free radicals (they slow down aging)**
- ❖ **Most concentrated in fresh, raw vegetables**
- ❖ **Vitamins A, C, and E**
- ❖ **Minerals selenium and zinc**
- ❖ **We make some antioxidants (if we are well nourished)**
 - ❖ **glutathione,**
 - ❖ **superoxide dismutase**
 - ❖ **catalase**
 - ❖ **peroxidase**



The Importance of Vegetables

Vegetables Supply:

- ❖ Dietary fiber which lowers incidence of cardiovascular disease and obesity. Fiber feeds good gut bacteria.
- ❖ Health protection because of their
 - ❖ Vitamins
 - ❖ Minerals
 - ❖ Phytochemicals which act as antioxidants, phytoestrogens, and anti-inflammatory agents



Adv Nutr. 2012 Jul; 3(4): 506–516. 2012 Jul 6. Health Benefits of Fruits and Vegetables
Joanne L. Slavin,* and Beate Lloyd

What To Eat to Reduce Chronic Disease

- ❖ Some vegetables are *very* beneficial
 - ❖ dark leafy greens
 - ❖ brassicas
 - ❖ orange and red vegetables
 - ❖ onions and garlic
- ❖ Dark colored berries (in moderation)
 - ❖ blueberries, blackberries, rose hips
 - ❖ most fruit is generally too sweet, watery, therefore less nutrient dense



What To Avoid to Reduce Inflammation

- ❖ Sugar - all forms (including excessive fruit)
- ❖ Refined and excess starches
 - ❖ including grains and potatoes
 - ❖ refined foods generally
- ❖ Refined oils- margarine, hydrogenated fats, fried foods



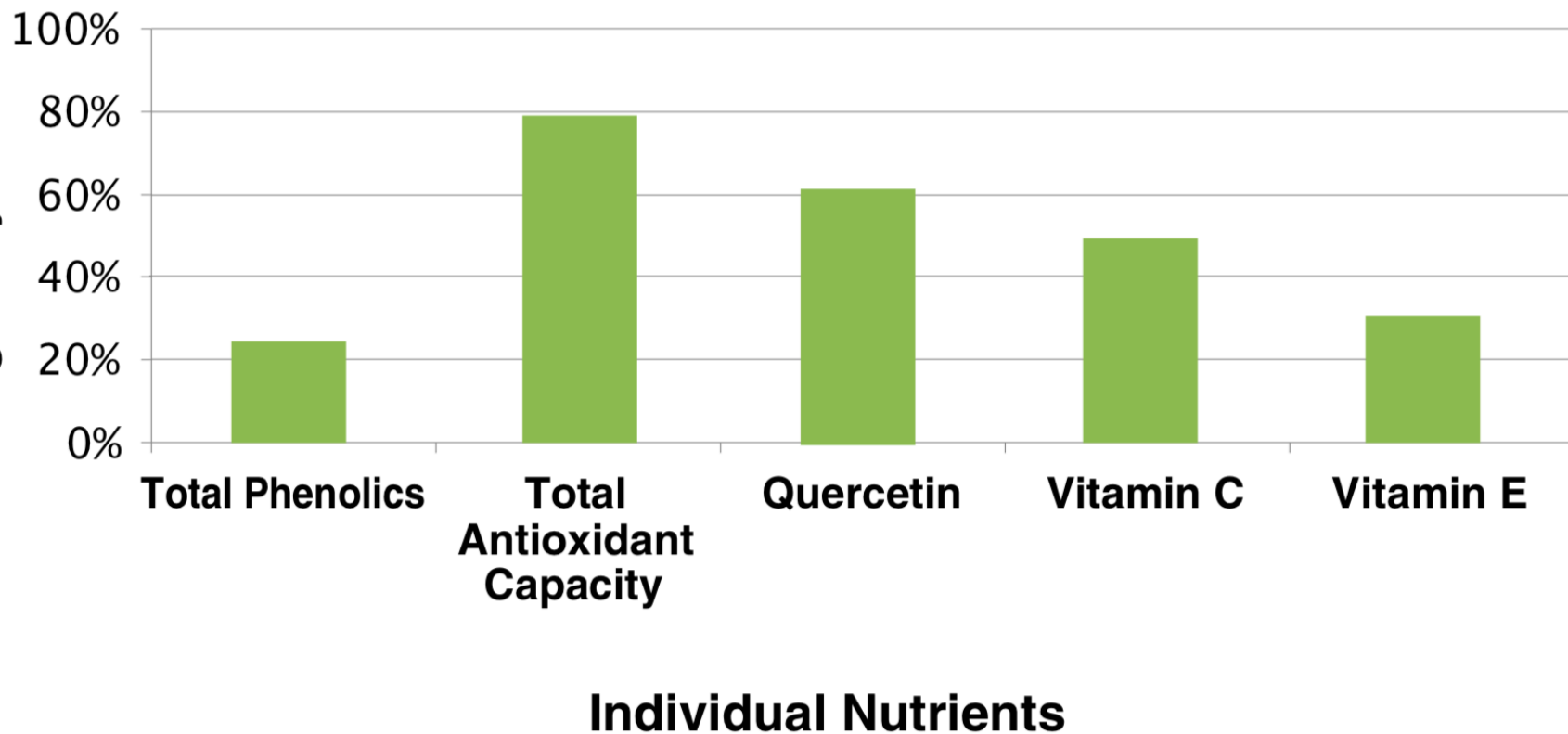
Differences in the Nutrient Content in Organic and Conventional Foods Across 11 Nutrients and 236 Matched Pairs

Nutrient	Number of Matched Pairs	Average Ratio of Organic to Conventional Values
<u>Antioxidants</u>		
Total Phenolics	25	1.10
Total Antioxdiant Capacity	8	1.24
Quercetin	15	2.40
Kaempferol	11	1.05
<u>Vitamins</u>		
Vitamin C/Ascorbic Acid	46	1.10
<i>B</i> -Carotene	8	0.92
<i>a</i> - Tocopherol (Vitamin E)	13	1.15
<u>Minerals</u>		
Phosphorus	32	1.07
Potassium	33	1.00
<u>Other Nutrients</u>		
Nitrate	18	1.80
Protein	27	0.90
Total Pairs and Average Ratio	236	1.25

Note: The nitrate ratio reflects the magnitude of the advantge of organic foods, which contain substantially lower levels of nitrate.

Percent of Total Matched Pairs for a Nutrient in Which the Organic Sample Nutrient Levels Exceeded the Conventional Samples by More than 10%

% of Matched Pairs with Organic Higher by 11% or More



Health and Organic Vegetables

“Statistically higher levels of total phenolics were consistently found in organically and sustainably grown foods as compared to those produced by conventional agricultural practices.”

Critical Reviews in Plant Sciences, Brandt et al; 2011

In a population-based cohort study of 68,946 French adults, a significant reduction in the risk of cancer was observed among high consumers of organic food.

JAMA Intern Med, Baudry et al; 2018



Health and Organic Vegetables

“Dietary pesticide exposure within the range of typical human exposure may be associated with adverse reproductive consequences.”

JAMA Intern Med, Chiu, et al; 2018

Prenatal Organophosphate Pesticide Exposure and Traits Related to Autism Spectrum Disorders in a Population Living in Proximity to Agriculture

Envir. Health Perspectives, Sagiv et al; 2018

“Elevated serum DDE levels are associated with an increased risk for Alzheimer disease”

JAMA Neurol. Richardson, et al; 2014



Your mother was right...



“Eat your vegetables.”

Thank you



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GERD · CELIAC DISEASE · CONSTIPATION · DIARRHEA

THE

WHOLE-FOOD GUIDE TO Overcoming Irritable Bowel Syndrome



STRATEGIES & RECIPES FOR EATING WELL WITH
IBS, INDIGESTION & OTHER DIGESTIVE DISORDERS



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