



The **Liker Health Report**

**Keeping People Focused on Staying Fit & Healthy**

Fall 2018

## Choose Organic Whenever Possible

### *Organic Foods' Nutrient Contents Differ from their Non-Organic Counterparts*

Research suggests a new reason for consumers to choose organic produce, milk and beef. Carlo Leifert, Ph.D. and colleagues from Newcastle University in the United Kingdom analyzed previously published studies that compared the nutrient content of organic vs. non-organic ("conventional") foods. The analysis of 343 studies of organic fruits and vegetables showed that organic produce was significantly higher in flavonoids, a type of antioxidant, that has been linked to a lower risk of chronic diseases, such as cardiovascular and neurodegenerative diseases and certain types of cancer. Four subsets of flavonoids identified included flavanones, flavones, flavonols, and anthocyanins; the organic versions contained 69%, 26%, 50%, and 51% higher levels, respectively, when compared to the non-organic versions. Conventional crops more frequently contained pesticide residues at levels four times higher than organic crops.\* Cadmium, a toxic metal found in chemical fertilizer, was also detected at significantly higher concentrations in conventional crops.

The analysis of 196 published studies comparing organic cow's milk to conventional milk showed organic milk to have a more favorable fatty acid composition. The content of polyunsaturated fat, omega-3 fatty acids, alpha-linolenic acid, and conjugated linoleic acid were 7%, 56%, 69%, and 41% higher, respectively, in the organic version. Omega-3s are healthy fats that are attributable to pasture-grazing, rather than grain-feeding; alpha-linolenic acid is the parent fat of the omega-3s. Conjugated linoleic acid has been shown in some studies to aid in weight loss. In a subsequent analysis of six studies, Dr. Leifert and his team compared the fats in meat from organically raised cows and conventionally raised cows. The organic beef contained 23% more polyunsaturated fat and 47% more omega-3 fatty acids. Overall, the data show that organic foods provide consumers with higher quality nutrition and fewer toxins.

\*Organic produce may contain pesticide residues due to spray drift from nearby farms.

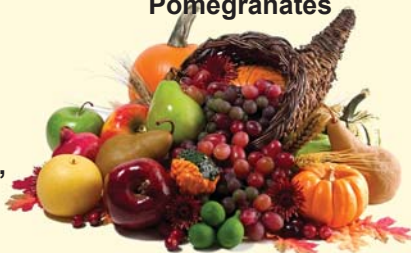
### Seasonal Eating: FALL & WINTER

#### COOL Climates

- Apples
- Beets
- Broccoli & Cauliflower
- Brussels Sprouts
- Cabbage
- Carrots
- Celeriac
- Cranberries
- Onions & Leeks
- Parsnips
- Pears
- Radicchio
- Sweet Potatoes
- Turnips & Rutabagas
- Winter Squash: Acorn, Butternut, Kabocha, Pumpkin

#### WARM Climates

- Citrus Fruits: Grapefruit, Lemons, Oranges
- Dark, Leafy Greens: Chard, Collards, Kale, Spinach
- Escarole
- Fennel
- Grapes
- Persimmons
- Pomegranates



### RESEARCH PEARLS:

#### Pesticide Exposure & Parkinson's Disease

Pesticide exposure has been linked to Parkinson's Disease (PD), and residents living in rural areas can be exposed to pesticides through "environmental drift" from nearby farms. Environmental drift refers to the spraying of agricultural pesticides that drifts through the air beyond the crops targeted by the spraying. Researchers in the Netherlands sought to identify the specific PD-risk-inducing pesticides out of 153 different possible pesticides. They narrowed it down to 21 related pesticides, which are primarily used on cereals and potatoes. They also confirmed that people with the highest cumulative exposure also had the highest risk of PD. Further research is needed to identify specific pesticides.



*Environ Int. 2017 Oct;107:100-110.*

# Sugar-Overloaded Brain

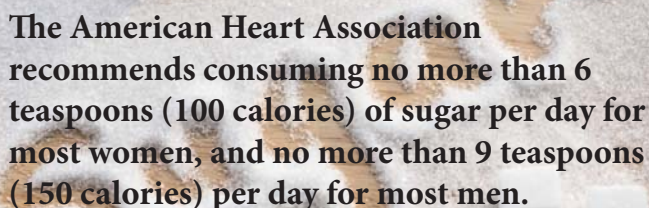
## Sugar's Negative Effects on Mental Health

It's fairly well-known that eating too many refined carbohydrates and sugar contributes to physical health problems such as obesity, type 2 diabetes, heart disease, and kidney failure. What is lesser-known but coming to the forefront of our health consciousness is the fact that a high-sugar diet also affects mental health, and the problem goes far beyond occasional mood swings caused by fluctuating blood sugar levels. Excessive sugar consumption has been linked to depression, anxiety, addiction, and dementia.

**DEPRESSION:** Mood disorders can be exacerbated by roller coastering blood sugar levels - the "sugar high" followed by a crash. Heavy sugar consumption has been linked to an increased risk of depression, and patients diagnosed with schizophrenia are even more adversely affected. Two current theories are (1) sugar promotes inflammation and oxidative stress which affect the brain and the immune system, and (2) sugar suppresses activity of brain-derived neurotrophic factor (BDNF), a hormone that is measurably lower in people with depression and schizophrenia; BDNF supports growth, development and survival of neurons.

**ANXIETY:** A high-sugar diet does not cause anxiety, but it appears to make symptoms worse and impairs the body's ability to manage and cope with stress. While on the blood sugar roller coaster, the body responds with blurry vision, racing thoughts, shaking, and/or tense muscles. These symptoms can be interpreted as a panic attack, and certainly make it more difficult to get anxiety symptoms under control.

**ADDICTION:** Like opioids, sugar has the potential to be addictive. When sugar and processed junk foods are eaten, they flood the brain with dopamine (the "feel-good" chemical) and over time, brain function changes. More sugary foods are needed to maintain the high (tolerance) and if sugar is not consumed, withdrawal symptoms occur (headache, cravings, etc.).



**The American Heart Association recommends consuming no more than 6 teaspoons (100 calories) of sugar per day for most women, and no more than 9 teaspoons (150 calories) per day for most men.**

***To err is human; to really foul things up you need a computer.***

**Bill Vaughan**

## Dear Dr. Liker...

*Are there any natural ways to avoid kidney stones?*



Experts agree that drinking more plain water - at least 8 cups daily - is the primary way to help prevent kidney stones. Unless you have kidney failure, it's important to keep fluids moving through the kidneys to flush out waste products that may contribute to stone formation.

Increasing magnesium (Mg) intake has been shown to lower the risk of calcium oxalate stones (the most common type of kidney stone) in several ways. First, it weakens the calcium-oxalate bonds so that aggregate size is smaller. Second, the body needs Mg to deposit calcium in the bones rather than the blood vessels and kidneys. Third, taking Mg at the same times as high oxalate foods (spinach, beets, potatoes, cashews, almonds, and peanuts), binds the oxalate in the digestive tract before it can enter the bloodstream and get absorbed. Lastly, taking Mg and vitamin B6 has been shown to reduce recurrence in people who experience recurring stones.

Other dietary suggestions include: consuming cold-water fatty fish such as wild-caught salmon and sardines, or taking a fish oil supplement which significantly decreases urinary concentrations of calcium and oxalate; including fresh lemon or lime juice in your diet because the citric acid appears to guard against stones; and avoiding processed foods because the sodium causes more calcium to remain in the kidneys and is likely to cause stones.

**HL**



## LIKER CONSULTING, INC.

The Center for Executive & Corporate Health

**Harley R. Liker, M.D., M.B.A.**

CEO

9675 Brighton Way, Suite 350  
Beverly Hills, CA 90210

E-mail: [hliker@likerconsulting.com](mailto:hliker@likerconsulting.com)  
[www.likerhealthreport.com](http://www.likerhealthreport.com)

Publisher and Editor-in-Chief -- Harley Liker, M.D., M.B.A.  
Senior Editor -- Karen Edwards, M.S.

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