

# Nutrition Tidbits

A Monthly Newsletter for patients at  
Family Medical Center at North  
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## What is USDA Organic?

Organic is a term used to explain that a food product has been "produced without the use of most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bio-engineering, or ionizing radiation."

- If labeled "100% organic," the product has no synthetic ingredient
- If labeled "organic," it has a minimum of 95% organic

ingredients. Both may use the U.S. Department of Agriculture (USDA) organic seal. Food labeled "made with organic ingredients" must contain at least 70% organic ingredients but may not use the seal.



## Organic Foods: To Buy or Not To Buy?

The production of organic food has skyrocketed over the last few years. The recent explosion in its popularity can be directly attributed to the "going green" trend, the attempt to off-set obesity rates and the big debate over the effects of pesticides, hormones and overproduction of our food on our health. Going organic must be carefully considered, especially when it comes to children and their growing bodies.

### Nutritional Debate

Many sold out believers say organic produce are superior in nutrition. The problem is that this cannot be proven due to vast amount of variables that come into play in comparing organic vs. conventional. These include temperature, soil composition, time measured from farm to table and maturity at harvest. More research needs to be done with all factors being created equal and so far, the results are inconclusive. One interesting thing to note about organic produce is that they contain lower nitrogen and nitrate levels. Once consumed, the debate starts on what occurs with the nitrate. Does it combine with

the amine group from protein sources to form nitrosamines or is it converted to nitrite with the help of gastric acid? Nitrosamines have been linked to higher incidence of cancer and nitrites, once acidified, have beneficial antimicrobial properties. The affects of plants grown with lower nitrogen levels is less debated. The lower the nitrogen level, the higher levels of phytonutrients with antioxidant, anti-inflammatory and anti-clotting properties the food contains. This may be the best argument for going organic in produce.

### Pesticide and Hormone Effects

Keep in mind that organic does not mean pesticide-free. There is a decrease in pesticides with organic produce, but some pesticide use is usually the reality in order to grow a crop at the levels our food supply requires. One pesticide in particular, *chlorpyrifos*, has been implicated in many negative effects in children including ADHD, obesity, diabetes and learning disorders. These are all serious charges. Although the U.S. government does not argue the negative effects that chlorpyrifos can have on people, they have set what they call safe limits in farming. The

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## Fight the Winter Blues

Are you feeling the winter blues? You know, that sleepy, low movement, low energy, hibernation mode with excessive cravings for comfort foods? Luckily, spring is just around the corner. Weather - good or bad - can set the tone of our moods if we let it. It's great when it's a positive effect such as the feeling a nice, sunny day has on us. But it can be quite challenging if you are living in area of the country that provides several dreary, cold and/or cloudy days back to back.

Fight those winter blues with quick spurts of activity. Break up sedentary work by doing 5, 10 or 15 minute cardio activities such as climbing some stairs at work, walking at the mall or even getting up from where you are and doing 50 jumping jacks. Resist the grab for caffeine - invigorate the natural way by getting your heart rate up! It will release endorphins, which will make you feel great.



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Food and Drug Administration (FDA) has set tolerances for chlorpyrifos for agricultural products ranging from 0.05 to 15 parts chlorpyrifos per million parts of food (0.05–15 ppm). The debate is whether or not these amounts have a lifelong impact on our health. Again, more research needs to be done before informed recommendations can be made. There are some foods that carry a higher pesticide residue on them following harvest. They have earned the nickname, "The Dirty Dozen." Those produce items are *peaches, apples, sweet bell peppers, celery, nectarines, strawberries, cherries, pears, grapes, spinach, lettuce and potatoes*. Encourage people to wash these produce items especially well with streaming water or a solution of vinegar mixed with 3% hydrogen peroxide.

### *Livestock & Dairy*

Hormones and antibiotics in cattle that produce beef and dairy are another topic of controversy. The hormone rbST is given to dairy cows to increase milk production. The rbST given to dairy cows increase the levels of insulin-like growth factor 1 (IGF-1) in the milk. This is same growth factor that is seen in women with breast cancer, although a causative relationship between drinking milk with IGF-1 and cancer has not yet been linked. Added hormones in milk and other foods have been implicated for early puberty rates. Others believe that is more linked to the higher hormone production from an increase amount of fat cells in adolescents than the hormones contained in milk.

Mastitis is higher in cows that are given rbST. As a result, they are given antibiotics to treat the condition. Cow's milk given rbST do contain residual amounts of antibiotics, but the Federal Drug Administration (FDA) insists that they are at low enough levels that are safe for consumption. Some implicate the use of these antibiotics and others used to fatten livestock for the increasing rates of people acquiring antibiotic-resistant infections. For this concern, the American Medical Association issued an opposition in 2001 regarding their subtherapeutic use of antibiotics in agriculture. Due to the controversy, many local grocery stores including Kroger, WalMart, H-E-B and Safeway are now providing regular milk without the rBST hormone.

**THIS MILK  
IS FROM COWS  
NOT TREATED WITH rbST**  
THE FOOD AND DRUG  
ADMINISTRATION HAS  
DETERMINED THERE IS NO  
SIGNIFICANT DIFFERENCE  
BETWEEN MILK FROM  
rbST TREATED COWS AND  
NON-rbST TREATED COWS

Label on rbST-free milk

### **Affordability**

The other big consideration is a family's ability to purchase organic foods. Organic foods require a higher grocery budget that may or may not be realistic for the average family in today's economy. Additionally, many families are not even eating adequate amounts of produce, low-fat dairy or lean meat/protein sources. For those families, going from a poor diet to a diet higher in any type of produce would be an improvement to their health.

### **Organic or Local?**

The trend in nutrition and dietetics is to encourage people to buy local produce whenever possible. Locally grown produce has a variety of benefits and they can be very economical. We know that when we buy local, the nutritional content of produce is better preserved due to less time spent away from the ground prior to consumption. Crowded conditions of factory farms increase the likeliness of bacterial contamination as seen in the 100% increase in salmonella cases in the last 10 years. As a side benefit, purchasing locally-grown produce reduces an individual's carbon footprint (*or, the total greenhouse gas emissions given off directly or indirectly by an individual*). Locally grown produce does not have to be transported long distances to make it to your dinner table, thus less fossil fuel. Much of the local produce we have to choose from in the Dallas area is also organic. Ask your local farmer about their particular growing standards. There are several farmers markets across the Dallas area that features many local farmers eager for business. Many farmers markets are now accepting WIC vouchers. To help a family find a local farmer's market in their area, have them go to: <http://apps.ams.usda.gov/FarmersMarkets>.

### **Consensus Recommendations**

Based on all of this data, here is a summary of things to consider:

- Buy local produce whenever possible.
- Reduce pesticide residues and other contaminants on foods by washing and scrubbing all produce under streaming water or vinegar with 3% hydrogen peroxide solution; discarding any cut produce that has been unrefrigerated for four hours or more; and trimming visible fat and skin from meat and poultry, as pesticide residues can collect in fat.
- Eat a variety of foods from different sources. That includes a variety of fruits and vegetables, not just the same family favorites.
- Prioritize. Any organic food dollars may choose to be spent on produce that contain they highest pesticide residue. Again, the ones with the highest residue (also called The Dirty Dozen) include *peaches, apples, sweet bell peppers, celery, nectarines, strawberries, cherries, pears, grapes, spinach, Lettuce and potatoes*.