

## **HEALTH AND WELLNESS NEWS ITEMS – January 2014**

**Abstracted and produced at Kendal at Oberlin by Nancy Beauchamp, Jerry Berner, Don Hultquist (editor), Nancy Hultquist (producer), Pam Lenz, Don Parker, Paul Spierling, and May Zitani.**

*If any of these abstracts seem relevant to your care, be sure to consult with your personal physician before changing your treatment.*

### **1. Is FRUIT JUICE JUST AS GOOD FOR YOU AS WHOLE FRUIT?**

A recent nutritional study suggests that you are better off eating whole fruit rather than drinking the juice from that fruit. Individuals who drink a serving of fruit juice each day were found to have an increased risk of developing diabetes. In contrast, eating at least two servings per week of whole fruits, such as blueberries, grapes, and apples, was associated with a decreased risk of developing diabetes. The authors explain that juice fluids are absorbed more rapidly than whole fruits and lead to more dramatic increases in levels of blood sugar and insulin. Moreover, the juicing process removes beneficial phytochemicals and fiber.

Sources: *Harvard Health Letter*, 39 (2), December 2013, Pg. 8

*British Medical Journal*, August 2013

### **2. NEW STUDIES ON DIABETES RISK**

A study of diet and diabetes in 175 countries has shown for the first time a positive correlation between sugar intake and risk of diabetes. Researchers found that for every ounce of increase of dietary sugar/day (about one can of soda) the prevalence of diabetes increased by approximately 1%. The impact of sugar on diabetes was independent of sedentary behavior and alcohol use. Data have been corrected for other risk factors.

Findings in another new study support the notion that the increased availability and consumption of sugars are important in the pathogenesis of diabetes at both the individual and population levels. The world-wide rise in type 2 diabetes has been linked to the cluster of abnormalities of lipids, blood pressure, and insulin function that has been termed the "metabolic syndrome." Obesity, associated with lack of exercise and increased consumption of calories, is thought to be the strongest risk factor for metabolic syndrome and type 2 diabetes.

The US Food and Drug Administration recently warned of increased risk of diabetes and worsening of glycemic control by statin drugs. Whereas the association is clear, there is no evidence that the elevations in blood glucose while taking lipid-lowering drugs are associated with an increased risk of cardiovascular events. Until further study is done, statins should continue to be used based on a careful assessment of risk and benefit.

Sources: PLOS ONE10.1371/journal.pone.005787; 27 February 2013

*Cleveland Clinic Journal of Medicine*, 79 (12), December 2012, Pgs. 883-893

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### **3. “WE ALL KNOW WE SHOULD EXERCISE, BUT—**

few realize that being physically active is the single most important thing that most of us can do to improve or maintain our health. Regular movement not only lowers the risk of developing or dying from heart disease, stroke and diabetes, it also prevents certain cancers, improves mood, builds bones, strengthens muscles, expands lung capacity, reduces the risk of falls and fractures, and helps to keep excess weight in check.”

So begins a review of the importance of exercise in *Scientific American*. This scholarly article focuses on newly discovered mechanisms that help us understand how exercise improves our cognitive capacity, the control of blood glucose, and our cardiovascular system.

Expanding our cognitive capacities. Exercise enhances our ability to concentrate, think, and make decisions. Since 2008, researchers have been able to correlate the sense of euphoria after prolonged exercise with the amount of endorphins (opioid-like hormones) released from the brain. These compounds have been shown to be active in the regions of the brain that are responsible for strong emotions. The area of the brain called the “hippocampus” is enlarged by exercise. The hippocampus is correlated with the ability to remember familiar surroundings. Exercise also increases the growth of new nerve cells by increasing the level of chemicals that trigger this growth.

Improving our ability to control blood glucose levels. Exercise prompts muscles to respond to lower levels of insulin and to make more efficient use of glucose. This not only results in better control of blood glucose levels, but also generates stronger muscles. Cells throughout the body are damaged and age prematurely when glucose levels are elevated. Moreover, elevated levels of insulin have been linked to a greater risk of breast and colon cancer. The association of exercise with decreased risks of type 2 (adult) diabetes, metabolic syndrome, breast cancer, and colon cancer has been attributed to this lowering of insulin and glucose levels.

Strengthening our cardiovascular system. Over the years, a great many studies have established that routine exercise helps to prevent heart disease. Recent studies provide greater insight into the mechanism of this prevention. In the past, prevention by exercise was attributed primarily to the reduction of blood pressure, the lowering of LDL (bad) cholesterol, and the raising of HDL (good) cholesterol. Such mechanisms are now thought to play relatively minor roles. More attention is now focused on the observation that “large LDL” molecules are stable and safe whereas “small LDL” molecules are particularly dangerous to other molecules and cells.

The latest U.S. exercise guidelines recommend the equivalent of at least 30 minutes of brisk walking (or other moderate activity) five or more days a week plus 30 minutes of muscle-strengthening activity at least two days a week. Only one in five Americans meets these recommendations. The authors point out the correlation between longer life expectancy and extent of exercise and recommend that health care providers regularly write a prescription for exercise during routine office visits.

Source: S.S. Bassuk, T.S. Church, and J.E. Manson, *Scientific American*, August 2013, Pgs. 76-79

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#### **4. WATCH FOR CAFFEINE IN SURPRISING SOURCES**

If it is important that you avoid caffeine, be aware that it is now showing up in some surprising sources including candy, water, breakfast treats, and painkillers! This development arose from the success of advertising for caffeine-containing drinks and snacks as replacements for coffee.

Food labels are required to list caffeine or other stimulants only when they are added to a food, but not when they occur naturally in an ingredient, such as coffee or chocolate. However, you can spot stimulants in food products by looking for marketing terms such as “energy” or “wired.”

Among the food products that may contain such “hidden” stimulants are:

Soft drinks: colas, root beer, ginger ale, and cream-, orange-, or lemon- sodas

Other drinks: energy drinks, energy water, bottled/iced tea and coffee

Breakfast foods: waffles, syrup, oatmeal, yogurt, cereal, breakfast bars, donuts

Desserts: cookies, cakes, frosting, ice cream, pudding, pies, sunflower seeds

Candies: jelly beans, mints, lollipops, gummy bears, marshmallows, gum  
Read the food labels and packaging carefully if you need to avoid stimulants!  
Source: *Harvard Health Letter*, 39 (2), December 2013, Pg. 3

## 5. **HOSPITALS PRESCRIBE PROBIOTICS FOR PATIENTS ON ANTIBIOTICS**

Studies in a number of hospitals indicate that ingestion of yogurt or other probiotics is effective in reducing the number of hospital infections caused by the bacterium, *Clostridium difficile*. *C. diff* (for short) is responsible for one of the most prevalent and most virulent of hospital infections. Annually, this bacterium is linked to 14,000 deaths and \$1.8 billion in medical costs. A single infection costs about \$35,000 to treat.

These infections arise predominantly in patients who are on antibiotics, since antibiotics kill the good bugs along with the bad. *C. diff* then has an opportunity to colonize the intestine and produce a toxin that can cause diarrhea, dehydration, and fever and, in severe cases, can cause recurrent infection, kidney failure, and death. *C diff* spores are hardy-- resistant to alcohol-based hand lotions and survive even on doorknobs and countertops. [Ed. Note: *C. diff and its spores can be removed from hands by soap and water cleansing, which is recommended for hospital workers.*]

Probiotics are live bacteria, the same or similar to the bacteria that are naturally present in the intestine. Probiotics may be administered as yogurt, oral supplements, suppositories, or creams. *Lactobacillus* and *Bifidobacterium* appear to be the most effective organisms.

A RAND Corporation review of many published studies found that probiotics are useful in both preventing and treating antibiotic-associated diarrhea. Other studies indicate that they may have potential in the treatment of a number of other medical problems. Probiotic treatment does not appear to be associated with major risks. However, hospitals, in general, have not yet endorsed probiotics for routine *C. diff* prevention and the FDA has yet to approve of any health claims for these organisms.

Source: *Wall Street Journal*, November 18, 2013, Pg. 7

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## 6. **ASPIRIN AS PREVENTIVE MEDICINE**

Aspirin has a well-established role in preventing adverse events in patients with known cardiovascular disease. However, its benefits in patients without a history of cardiovascular disease is not as clear, particularly in women, the elderly, and people with diabetes. The U.S Preventive Services Task Force encourages a daily low-dose (75-100 mg) of aspirin for those with no history of cardiovascular disease when the potential cardiovascular disease benefit outweighs the risk of gastrointestinal bleeding. However, current evidence is insufficient to assess this risk-versus-benefit of aspirin use in patients 80 and older. Patients with diabetes, uncontrolled blood pressure, or bleeding disorders would be among those at greater risk for preventive medication with aspirin.

Source: *Cleveland Clinic Journal of Medicine*, 80 (5), May 2013, Pgs. 318-326

## 7. **TRY THIS TO LOWER YOUR BLOOD PRESSURE**

A growing number of published studies have confirmed an easy and inexpensive way to control hypertension—**monitor your blood pressure at home**. One of the recent studies “found 72% of those doing home monitoring had their blood pressure under control compared with 57% who received usual care with primary doctors.” The success is attributed to the more frequent monitoring at home and to the patients becoming partners in blood pressure management, leading to more exercise and less salt intake.

"One in three adults in the U.S. has high blood pressure, and half don't have it under control." Excess pressure against the blood vessel walls injures the walls and forces the heart to work harder. The result is an increased risk for heart disease and stroke, which are the leading causes of death in this country. Why are so many people hypertensive? Some are unaware, some fail to take their medicines, and others have not yet found an effective medication regimen.

A good home blood pressure monitor can be purchased for \$50 to \$100. Ask if your insurance will cover the cost. Select an automatic monitor that does NOT require a stethoscope, uses a cuff that fits around the upper arm, has a large enough readout, and has a seal from a recognized organization, such as the Association for the Advancement of Medical Instrumentation (AAMI). Ask your health provider or your pharmacist to calibrate your monitor and teach you how to use it. Initially, check your pressure early in the morning and again in the evening, and then ask your health provider how often it should be checked. Remember that home monitoring is not a substitute for regular physician check-ups.

Sources: *Harvard Health Letter*, 39 (3) January 2014, Pg. 3

*Journal of the American Medical Association*, 310 (1), July 2013, Pgs. 2395-2396