

Peppers

- 1. Compare the Nutrition Facts labels for sweet and hot peppers, both red and green varieties. What nutrients are the same for all peppers? What nutrients are different? Which variety has the most vitamin A? List the excellent sources for both sweet red and green peppers. Why does the nutrient content of a sweet pepper increase as it ripens (becomes red)?**

- Nutrients that are the same in % Daily Values include: calcium
- Nutrients that vary in % Daily Values include: iron, vitamin A, vitamin C, and fiber.
- Excellent sources for red and green peppers include: vitamins A and C
- Red peppers are originally green, but are left on the vine to ripen longer and the nutrients increase as they are left to grow.

- 2. What is vitamin B₆? What role does it play in the body's functions? What happens if you are deficient in vitamin B₆? What happens if you have too much vitamin B₆? Make a list of foods that are excellent (>20%) or good (10-19%) sources of vitamin B₆.**

Vitamin B₆, also known as pyridoxine, helps the body make nonessential amino acids needed to make cells in the body. It also helps produce insulin, hemoglobin and antibodies to fight infection. If you don't get enough vitamin B₆ the deficiency can cause depression, nausea, and greasy, flaky skin. If you consume too much, it can cause nerve damage.

Chicken, fish, pork, liver and kidney are some of the best sources of vitamin B₆.

- 3. What are *capsaicinoids*? What part of the pepper contains capsaicin? Why are some peppers hotter than others? How is the "hotness" level measured? What unit is used to measure the amount of capsaicin or "heat" in peppers? What is the best way to get relief after eating a very hot pepper: drink water or milk? Why?**

Capsaicinoids are natural substances that produce a burning sensation in the mouth, causing the eyes to water and the nose to run, and even induce perspiration. They have no flavor or odor, but act directly on the pain receptors in the mouth and throat.

Capsaicinoids are found primarily in the pepper's placenta – the white “ribs” that run down the middle and along the sides of a pepper. Since the seeds are in such close contact with the ribs, they also are often hot. In the rest of the vegetables, capsaicinoids are unevenly distributed throughout the flesh, so it is likely that one part of the same pepper may be hotter or milder than another. Capsaicinoid content is measured in parts per million. These parts per million are converted into Scoville heat units, the industry standard for measuring a pepper's punch. One part per million is equivalent to 15 Scoville units. Bell peppers have a value of zero Scoville units, whereas Habaneros-the hottest peppers-register a blistering 200,000 to 300,000. (Pure capsaicin has Scoville heat unit score of 16 million.)

Drinking water, or just about any other beverage, will only spread the fire. The one liquid that seems to work is milk. It contains a protein called casein, which literally wipes away capsaicin, the fiery compound in peppers.

For information, reference:

Dietary Reference Intakes: The Essential Guide to Nutrient Requirements, Institute of Medicine, 2006.

University of Berkeley: The Wellness Encyclopedia of Food and Nutrition. Health Letter Associates, 1992.

www.fruitsandveggiesmatter.gov/month

www.nal.usda.gov/fnic/foodcomp/search/

Updated: November 2009