Phytochemicals help plants, humans

I keep hearing good things about "phytochemicals." What are they, exactly?

To get to the very basics, phytochemicals are simply chemicals from plants. In fact, phyto is from the Greek word phyton, which means "plant."

Researchers have long known that phytochemicals protect the plants they are found in. More recently, phtochemicals have been found to protect against human disease, too. Phytochemicals may be beneficial in the prevention or treatment of cancer, diabetes, cardiovascular disease and hypertension. Among other things, they help prevent cell damage, they prevent cancer cells from replicating, and they decrease cholesterol levels.

More than 900 different phytochemicals have been identified, with more being recognized every day. Some researchers estimate that there may be more than 100 different phytochemicals in just one serving of vegetables. Carotenoids may be the most well-known phytochemicals. Others include indoles, isothiocyanates, flavonoids and isoflavones. Each works in different ways, and each appears in different types of fruits and vegetables. (For more information, see the Ohio State University Extension fact sheet "Phytochemicals - Vitamins of the Future?" on-line at http://ohioline.osu.edu/hyg-fact/5000/5050.html.)

For most people, all this means two simple things: Eat a variety of fruits and vegetables every day, and don't overcook them. (High heat can destroy phytochemicals.) However, researchers hope to gain enough of an understanding of phytochemicals to create new chemotherapy drugs for cancer patients and perhaps "chemopreventive" drugs for high-risk groups.

In the meantime, eat more fruits and vegetables:

- Keep fruits and vegetables (fresh, frozen, and canned) stocked and in sight.
- Reach for 100 percent juice instead of coffee or soda.
- Add chopped fruit to cereal, yogurt, pancakes, muffins, or even a milkshake.
- Snack on fresh chopped carrots, celery, broccoli, cauliflower and peppers.
- Add fresh greens, carrots, celery, parsley, tomatoes, and beans to canned soups, stews or sauces.
- Store dried fruit (apricots, dates, raisins, and more) for a quick snack at home or work.

Chow Line is a service of The Ohio State University. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH 43210-1044, or filipic.3@osu.edu.

THE OHIO STATE UNIVERSITY

For the week of November 4, 2001

By Martha Filipic
(614) 292-9833

Editor:
This column was reviewed by Joshua Bomser, assistant professor in the Department of Food Science and Technology.

To receive Chow Line electronically, send any e-mail message to:
osu-chow-on@ag.ohio-state.edu

Read all of our news releases on the web at:
http://ohioline.osu.edu/news/

Section of Communications and Technology
News & Media Relations
2021 Coffey Road
Columbus, Ohio 43210-1044
(614) 292-2011

203 Research Services Building
Wooster, Ohio 44691-4096
(330) 263-3775