



E

ating can make you feel better.

The soul-satisfying Thanksgiving dinner with loved ones, the heart-comforting dessert after a relationship ends and the taste-bud-tingling sensation from a new cuisine are well-known epicurean experiences. The problem is, what appeals to the emotions is not always best for the body— though by making noticeable improvements to health and nutrition, emotional and other benefits can follow.

Every year, new evidence is developed to support the argument that the way we cultivate, prepare and consume our food can determine whether we're healthy—a major factor in enjoying life—or we're struggling with diet-related chronic diseases that are among the leading causes of death in the United States: heart disease, stroke, diabetes and some cancers. One recent study found that more than 9 million Americans of recruiting age are too heavy to join the military, with the proportion of recruits

rejected for being overweight jumping from 12 percent in 1995 to 21 percent in 2008. As obesity approaches epidemic levels in this country, how and what we eat is undergoing more scrutiny than ever before.

By now, many of us are familiar with some of the high-profile efforts encouraging Americans to be more conscientious about their eating habits, from First Lady Michelle Obama's organic White House garden to the growing number of community and state proposals to raise taxes on sugar-based soft drinks. This section of *h* features a variety of programs that promote good nutrition and offer practical suggestions for ways that individuals and families can make informed choices about what they consume.

We believe that eating can make us feel better, but that healthy eating can help us live best. *h*

—Carmen Lee, *h* staff



PANNING POP It could be called the Soft Drink Rebellion—only this time, the critics *want* the tax. As part of what might be viewed as a counter-college-culture project at Carnegie Mellon University, a 21-member team—including from left to right above, senior Dan LaVallee, professor Marvin Sirbu, graduate student managers Sharon Wagner and Kate Ricke, professor Ed Rubin, and seniors Sylvia Lee and Joe Kopko—bucked campus tradition and made a case for cutting calories and generating local revenue by drinking fewer soft drinks. And because college students aren't usually known for their nutrition consciousness, much less for examining the issue so thoroughly, the results of the team's study made front-page news in Pittsburgh.

In Allegheny County, 28.4 percent of the population is grossly overweight, which is worse than the national average of 26.7 percent. Working under the supervision of Engineering and Public Policy

professors Rubin and Sirbu, the Carnegie Mellon team, which included students from that department and the university's Department of Social and Decision Sciences, found that obesity is costing county residents more than \$500 million a year in medical expenses and lost work time. But some of that money—about \$54 million annually—could be recouped if county officials added a 1-cent-per-ounce tax on soft drinks, which the study also determined would reduce consumption by up to 8 percent. The students suggested that the revenue generated could support obesity-prevention efforts. The team made these and other recommendations after using a "lifestyle analysis" of five areas—food shopping, school programs, workplace activities, restaurant menus and recreational facilities—to develop proposals for reducing obesity countywide. *To get a copy of the study, call 412-268-1085.*



FOOD FUN The Fitwits program makes learning about healthy lifestyles entertaining by including colorful flash-cards, right, that show children how to use their hands to measure appropriate food portion sizes. The cards also can be incorporated into games as demonstrated by, beginning left, Kentucky Avenue School students Yuta Nakao, Tiernan Passmore, Rowan Sileo and Tiffany Allen. Adding to the fun are cartoon food characters called “Fitwits” and “Nitwits” that have imaginative biographies and adventures.

Created by the Carnegie Mellon University School of Design and UPMC St. Margaret Family Health Center, the program enlists the support of families, schools and community health services. This coalition encourages students to be physically active and teaches them how to make nutritious food choices.

A recent study published in the “International Journal of Obesity” found that the program’s range of presentation methods and its simplified health vocabulary are effective in helping students understand obesity and the importance of exercise and good nutrition.

The Heinz Endowments has been the sole funder of Fitwits, awarding the project nearly \$540,000 since 2006. For more information: www.fitwits.org



FROM GARDEN TO HOSPITAL BEDSIDE

First Person: Judith A. Focareta, coordinator of Environmental Health Initiatives, Magee-Womens Hospital

Providing education about healthy nutrition and offering healthy food choices have always been a part of the Magee-Womens Hospital vision. In 2008, members of its "Green Team" proposed taking the next logical step: planting organic vegetable and herb gardens in three indoor courtyards. The produce would be used in healthy foods prepared for staff and patients, and the gardens would serve as tools for education.

This dream became a reality last summer, thanks to the assistance of Phipps Conservatory staff and funding from the more than \$1.4 million that The Heinz Endowments has given us for a variety of environmental health initiatives. The courtyards and their gardens are all accessible to staff and patients. Educational signage describes the benefits of eating pesticide-free produce and gives instruction on how to plant organic gardens at home. And the advantages of our hospital-grown vegetables and herbs have become apparent in a variety of ways. At the

WomanCare Birth Center Courtyard, for example, the fragrance of basil wafts through the air as pregnant women walk there during labor. This courtyard garden also can be enjoyed by patients in the Cancer Center. In addition, last year's basil harvest was incorporated into pesto, which was frozen and provided to staff and patients throughout the winter months.

As part of this year's spring planting, we expanded our food education program with the assistance of horticulturists from Phipps Conservatory. Each week, the dietary staff is learning about growing, maintaining and harvesting the gardens. Each month, a lunch-and-learn session is provided for all staff and patients, and includes information about health problems

associated with pesticide usage, ways to reduce exposures and methods used in planting organic gardens. Nursing students from Carlow College, such as those shown at left, and medical students from the University of Pittsburgh Medical School also have been coming to learn and to help plant and maintain the gardens.

We believe that these courtyard gardens have contributed to Magee's commitment to community health, wellness and education while providing beautiful, relaxing spaces for those we serve.



Magee-Womens Hospital



Life expectancy
would grow by leaps
and bounds if green
vegetables smelled
as good as bacon.

DOUG LARSON

GOLD MEDALIST AT THE 1924 OLYMPICS

1902-1981

the baker's dozen

13 superfoods to prevent cancer

FOOD	CONTAINS	MAY HELP PREVENT
cruciferous vegetables: broccoli, kale, cauliflower, bok choy, brussels sprouts, cabbage	isothiocyanates, glucosinolates, crambene, indole-3-carbinol	cancer (lung, stomach, colorectal, prostate, bladder)
green tea	polyphenols, catechins	cancer (colon, liver, breast, prostate)
soy foods: tofu, soymilk, soy nut butter, edamame	isoflavones, saponins, phenolic acids, phytic acids, phytosterols, protein kinase inhibitors	cancer (breast, prostate)
tomatoes	vitamin C, beta carotene, lycopene	cancer (prostate), heart disease
onions, garlic, scallions, leeks, chives	allium compounds	cancer (stomach, prostate, endometrial), heart disease
berries	ellagic acid, phenolic compounds	cancer
orange fruits and vegetables: carrots, sweet potatoes, papaya, cantaloupe	beta carotene	cancer
citrus fruits	monoterpenes, vitamin C	cancer
nuts	ellagic acid, omega-3 fatty acids	cancer, heart disease
greens: spinach, kale, romaine, collard greens, chicory, chard	lutein, fiber, folate	cancer (liver, ovarian, colon, prostate)
legumes: lentils, peas	saponins, protease inhibitors, phytic acid, dietary fiber	cancer (colorectal)
whole grains: brown rice, oatmeal, whole grain breads, pasta	fiber, phenols, lignans, antioxidants, phytoestrogens, saponins	cancer
watermelon	vitamin C, beta carotene, lycopene	cancer (prostate), heart disease

The Center for Environmental Oncology, University of Pittsburgh Cancer Institute



fact

90 PERCENT OF WATER SYSTEMS IN THE NATION MEET EPA STANDARDS. TAP WATER IS MORE STRINGENTLY REGULATED THAN BOTTLED WATER.

Food, one assumes, provides nourishment, but Americans eat it fully aware that small amounts of poison have been added to improve its appearance and delay its putrefaction.

JOHN CAGE
AMERICAN AVANT-GARDE COMPOSER
1912-1992

h Q&A: DR. SERVAN-SCHREIBER



Dr. David Servan-Schreiber was 31 when he tested a brain-scanning machine on himself and learned that he had a brain tumor. Further tests determined it was cancer. After conventional treatment, Servan-Schreiber asked his oncologist what he should change, and was told he could resume his usual way of life. When the cancer came back a few years later and he had to endure a second round of surgery, chemotherapy and radiation therapy, he decided to use his medical and scientific training to explore how to better prevent cancer. His discoveries, which included food and nutrition findings, led to his best-selling book “Anticancer: A New Way of Life.”

Today, Servan-Schreiber, 49, is a clinical professor of psychiatry at the University of Pittsburgh School of Medicine and an adjunct professor of general oncology at the University of Texas’ M.D. Anderson Cancer Center. He and his Anderson Center colleagues are raising funds for a five-year, \$5 million research project to develop innovative, integrative oncology interventions based on the model outlined in his book. Servan-Schreiber also is president of Institut Prévenir Guérir in France, and a co-founder and former director of the UPMC Center for Integrative Medicine.

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Q: How does food fight disease?

A: Foods we eat every day become our cells and control many of our biological processes. They can contribute to oxidation, inflammation and cancer growth, as in the cases of trans fats in industrial food, omega-6 fatty acids in corn and soybean oil, or excessive amounts of refined sugar. Or, the natural chemicals they contain—sulfur compounds of onions and garlic, ellagic acid of raspberries, omega-3 fatty acids of fish, polyphenols of green tea or dark chocolate—can do just the opposite: reduce inflammation, control free radicals, and slow down cancer cell growth or even directly help induce the death of cancer cells.

Q: What foods are usually good for everyone?

A: Primarily vegetables, especially the cabbage family—broccoli, cauliflower, green/red/white cabbage, brussels sprouts—because of their indole-3-carbinols and sulforaphane. Also the onion/garlic/leek family. Garlic has been found on Sumerian medicine tablets that are several thousand years old, and it was known as the “Russian penicillin” during World War II. It helps regulate blood sugar, stimulate the immune system and slow down cancer growth. Most vegetables are rich in plant-based chemicals that our genes have evolved over millions of years to take advantage of and now count on to support our core biological functions that sustain health. Many fruits contribute to our health in the same way, especially brightly colored ones.

Q: So how healthy—or unhealthy—are beef, poultry and seafood?

A: In practically every study, consumption of seafood is associated with better health, less cardiovascular disease, less Alzheimer’s disease and less cancer. Red meat, especially barbecued or grilled, is, on the other hand, consistently associated with more disease. Poultry is more neutral, especially if eaten without the skin, which stores most of the saturated fat.

Q: What difference does eating organic foods make?

A: A research study from the University of Washington in Seattle found that children who eat primarily organic foods—70 percent of their food—have almost no residues of pesticides in their urine, whereas those who eat “conventional” foods, derived from chemically stimulated agriculture, can have up to four times the upper limit of pesticide residues tolerated by the Environmental Protection Agency. We can infer that adults are similarly affected. While there is no established link to specific illnesses, these chemicals are meant to disrupt biological processes and often mimic the effects of a variety of hormones, especially estrogen hormones. This could spur the growth of some tumors that are estrogen sensitive: breast, ovarian, and some brain and prostate tumors.

Q: What are the best food preparation methods?

A: It is best to cook vegetables briefly and to avoid boiling them. Boiling and overcooking waste or destroy some of the health-supporting chemicals in plants. The best way to prepare meat is the old Cretan technique of broiling vertically so the grease does not contact the flames. (This is how gyro meat is prepared in the Middle Eastern tradition.) The Asian tradition of preparing thin slices of meat that are stir-fried with a large amount of vegetables also is better.

Q: To what degree does healthy eating alone improve someone’s health, or does better eating have to be done in conjunction with exercise to be effective?

A: This is very hard to answer from existing research. Yet, some studies clearly suggest that the combination of healthy eating and at least some degree of exercise (30 minutes of walking, five to six times per week) confers a marked benefit over either done in isolation.

For more information: www.anticancerways.com.