lesscancer.org

less cancer for everyone.

A Program of Next Generation Choices Foundation
OFFLINE PUBLICATION JUNE 2008

DONATION OPPORTUNITIES

A gift of any amount is of great help towards cancer prevention and/or early detection.

Below are a few cancer prevention and/or early detection organizations that can benefit from your generosity.

University of Pittsburgh Cancer Institute Center For Environmental Oncology
Please mail donations to:
U. of Pittsburgh Cancer Institute
The Center for Environmental Oncology
UPMC Cancer Pavilion
5150 Centre Street, Suite 434
Pittsburgh, PA 15232

University of Pittsburgh Cancer Institute
Development Department
UPMC Cancer Pavilion, Suite 1B
5150 Centre Avenue
Pittsburgh, PA 15232
Main Phone: 412-623-4700
Fax: 412-623-4710

Barbara Ann Karmanos Cancer Institute
c/o Development Office
4100 John R
Detroit, MI 48201
Fax: (248) 351-1869
Questions about Giving:
giving@karmanos.org

University of Michigan Comprehensive Cancer Center
Office of Development
301 East Liberty Street, Suite 130
Ann Arbor, MI 48104
888-518-7888

Children's Hospital of Michigan Foundation
Attention: Development Office
Hematology/Oncology
3911 Beaubien Street
Detroit, MI 48201
Phone: 313-745-5373

Next Generation Choices Foundation/LessCancer.org
Make checks payable to
Next Generation Choices Foundation
Post Office Box 1801
Middleburg,VA 20118
A Public Charity 501C3

You can make a difference today.

lesscancer.org
less cancer for everyone.

Why We Do What We Do

Raising Awareness — Making Change

By Bill Couzens, Founder, LessCancer.org and Next Generation Choices Foundation

There are many opportunities to eliminate unnecessary and preventable environmental exposures that are either suspected or known to be linked to cancer.

Never before have we had more cancer.

This year 1.4 million people will be hearing the devastating news that they too have cancer.

Scientists tell us that 70-80% of all cancer is linked to the environment (as opposed to heredity), meaning that most all cancer comes from outside of our bodies. This, of course, reflects some behaviors including smoking.

Cancer is not an unlucky roll of the dice, but rather is manufactured.

Everyday more than 1,500 men, women and children die of cancer in the U.S.

Every school day this year in this country, two classrooms, or approximately 46 school children, will be diagnosed with cancer.

I think it can be different, I think we can have a world of less cancer.

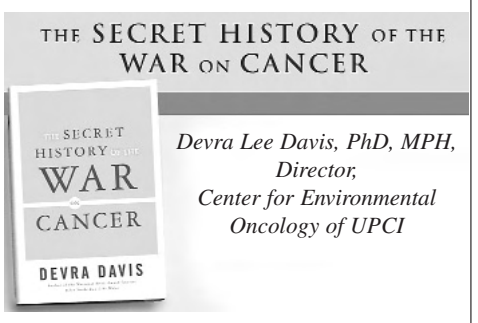
But beyond what I think, there is sound science and data that suggest it can be different. There can be less cancer.

While the cure can never be underestimated, we must expand our view of cancer to include prevention.

There are things we can do in our own homes, schools and work to remove or reduce those everyday items we assume are safe.

We are in a place where all of us can make change with the choices we make. ■

The Unrecognized Risks of CT Radiation



Devra Lee Davis, PhD, MPH, Director, Center for Environmental Oncology of UPCI

Excerpts from book —

Diagnostic radiation is a modern miracle we have come to depend on. In 1979, The Nobel Prize in Medicine and Physiology was awarded to Godfrey N. Hounsfield and Allen M. Cormack, the engineer and physicist who invented the system for creating three-dimensional images of the human body. Computerized imaging technology is now such a large, profitable industry that it has its own futures market. Seven times more CT scans are conducted today than just ten years ago.(1) The leading manufacturer, Cardinal Health, is one of the twenty largest companies in the world, with revenues of more than $87 billion a year.(2)

New government regulations in the United States are shutting down what had been highly profitable ventures in which physicians would prescribe tests on machines they themselves owned. When offered a three-dimensional look inside an old set of knees or a cranky stomach, a patient does not usually ask whether this remarkable test might increase her long-term risk of more serious ailments.

When my then eleven-year-old daughter was given a CT scan of her abdomen to see if she had a ruptured spleen, I was just like most parents with a child in the emergency room. All I wanted to know was that she would be okay. But when I asked the young radiologist if there was a way to shield my daughter's chest, she looked at me skeptically and asked, "Why? She doesn't have any breasts." I explained to her that we know that radiation exposure to the chests of girls before puberty increases the chances that breast cancer will develop later on. The woman looked at me as if I were slightly insane.

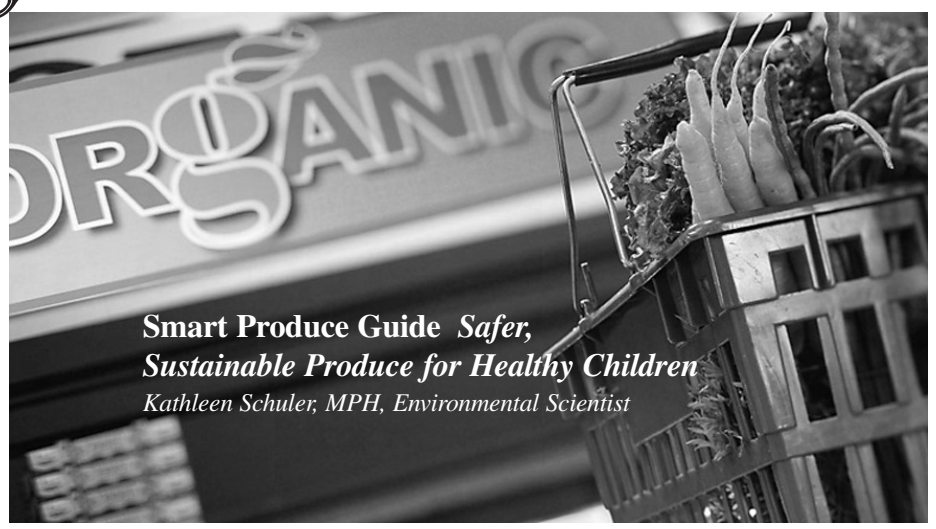
Continued on page 3

Our Mission:
Eliminate the unnecessary and preventable environmental exposures that are both known and suspected to be cancer-causing.
Our Vision:
Eradicate cancers linked to unnecessary and preventable environmental exposures.

lesscancer.org
less cancer for everyone.

Post Office Box 1801
Middleburg Virginia 20118

CLIP & SAVE



Smart Produce Guide *Safer, Sustainable Produce for Healthy Children*

Kathleen Schuler, MPH, Environmental Scientist

Fruits and vegetables provide essential minerals, vitamins and fiber that are critical for growing children and pregnant and nursing women. To maximize health benefits, everyone should try to eat three to five servings of vegetables and two to four servings of fruit each day. On the other hand, produce often contains residues of pesticides, chemicals designed to kill weeds and insects. Pesticide residue levels vary depending on the type of produce and how it's grown. This guide will help you choose fruits and vegetables that have lower residues, so you can minimize pesticide exposure while enjoying fresh produce. It also provides tips on avoiding other contaminants affecting produce and resources on locally produced and organic foods.

According to data from the Centers for Disease Control, children have higher levels of many pesticides and pesticide metabolites in their urine than adults. Children ages 6–11 had nearly twice the body burden of chlorpyrifos, a widely used insecticide.(1)

Tips for reducing your family's exposure to pesticides on produce

- **Wash and peel.** Thoroughly wash produce under cold water, and then do what you would normally do: scrub potatoes, peel carrots, stem strawberries, and so on. Washing reduced the amount of produce containing pesticide residue by half in one study, and where residues remained, levels declined significantly after washing.(2) Washing also helps reduce exposure to soil lead and to pathogens on produce.
- **Buy organic produce as much as possible.** Since organic certification restricts the use of chemical pesticides, look for certified organic produce at your local supermarket, food co-op or farmer's market. If you can't buy all organic, selectively purchase organic among the types of produce that typically have the highest pesticide residues, especially for produce your child eats the most.
- **Choose local produce whenever possible.** Most food in the U.S. is produced on large industrial farms far away from the people who consume it. Industrial farms use more chemicals and energy while producing more pollution than local food systems.(3) Local produce is usually fresher and better tasting, because it doesn't have to be shipped long distances. Local food production causes less harm to the environment and public health, and helps the farmer and the local economy too.(4) Not all local farms are organic, but small-scale, local farmers tend to be more receptive to consumer demands. Ask local farmers if they use pesticides and chemical fertilizers.

Fruits with highest pesticide residues
Apples, grapes (imported), nectarines, peaches, pears, red raspberries, strawberries

Vegetables with highest pesticide residues
Bell peppers, carrots, celery, green beans, hot peppers, potatoes, spinach

Fruits with moderate pesticide residues
Apricots, blueberries, cantaloupe grapefruit, grapes (domestic), honeydew melons, oranges

Vegetables with moderate pesticide residues
Collard greens, cucumbers, kale, lettuce, mushrooms, sweet potatoes, tomatoes, turnip greens, winter squash

Fruits with lowest pesticide residues
Apple juice(*), bananas, kiwi fruit, mangoes, orange juice(*), papaya, peaches (canned), pineapples, plums, tangerines, watermelon

Vegetables with lowest pesticide residues
Aparagus, avocado, broccoli, cabbage, cauliflower, onion, sweet corn, sweet peas

List based on analysis us USDA and FDA data (1992-2001) by the Environmental Working Group(7), except for items with an asterisk (*), which are based on a study by Consumers' Union of USDA, California Department of Pesticide Regulation and CU Testing Data(8).

Health and Environmental Impacts of Pesticides

Although pesticides are by definition toxic, amounts on produce tend to be small compared with exposures that often result from use of pesticides in homes, gardens, child-care centers, parks and schools. Children can also be exposed to pesticide residues in drinking water — a child's most consumed "food."(5) However, it is prudent to minimize a child's exposure to pesticide residues on produce, because of the inherent toxicity of pesticides, along with a child's unique vulnerability to their toxic effects and a child's higher weight-adjusted consumption of some types of produce. Aside from their health risks, conventional agriculture's reliance on pesticides and chemical fertilizers pollutes both ground and surface waters, making it less sustainable than organic agriculture.

By choosing produce that's grown organically or with fewer chemicals, parents can support a healthier environment and protect their children by reducing pesticide exposures.

Other Contaminants Affecting Produce

Sewage sludge can contain bacteria, viruses, heavy metals, synthetic organic chemicals and prescription drugs and is often used as a fertilizer in conventional agriculture. Organic standards currently prohibit the use of sewage sludge.

Pathogens. The most common disease-causing bacteria found on produce are E. coli and salmonella. There is no evidence to support a greater risk of pathogens on organic produce than on conventional produce.(6)

Lead from paint chips or from older auto emissions persists in the soil, so lead on produce grown in city gardens can be a problem. Although very little lead is taken up into the plant itself, external lead dust can adhere to the plant, especially leafy and root plants. To reduce lead exposure, thoroughly wash all produce. To have your garden soil tested for lead, contact your local university soil testing laboratory. ■

References for Article found on page 4

Breast Cancer Diagnosis Comes Late for Women in Gentrifying Neighborhoods

The researchers found that women living in neighborhoods with concentrated disadvantage, concentrated levels of immigration, and lower levels of affluence in 1990 ran a greater risk of distant-stage diagnosis of breast cancer.

Women who live in Chicago's gentrifying neighborhoods are more apt to receive a late diagnosis of breast cancer than women who live in poverty-stricken neighborhoods, University of Illinois at Chicago researchers have found.

The surprising finding is in a study published in the January issue of the *Annals of Epidemiology*.

"There's been a lot of social change in American cities since 1990, but we know very little about how gentrification impacts health outcomes," said Richard Barrett, researcher at the UIC Institute for Health Research and Policy and lead author of the study. "We know that minority women in Cook County are more likely to be diagnosed with late-stage breast cancer and to die from it compared with white women, but we were interested in how neighborhood change impacts breast cancer diagnosis."

Previous research indicated that places with more people of higher socioeconomic status tend to have lower rates of distant metastasis when diagnosed with breast cancer, Barrett said.

"That would lead one to assume that if an area becomes gentrified, then the proportion of breast cancer cases diagnosed with distant metastases would decline, and patients should have a better chance for survival. Our study showed that is not true."

The researchers analyzed Illinois State Cancer Registry data in conjunction with Cook County census tract data. The cancer data included information on age, race, ethnicity and stage at diagnosis for 21,516 breast cancer cases between 1994 and 2000 among women living in Cook County.

"Chicago is a great laboratory to study racial and ethnic disparities in health, and how your neighborhood can affect your health," said Barrett, who is an associate professor of sociology at UIC.

To measure neighborhood change between 1990 and 2000, the researchers tracked changes in owner-occupied housing values, professional and managerial employment, and adults with a college education.

The researchers found that women living in neighborhoods with concentrated disadvantage, concentrated levels of immigration, and lower levels of affluence in 1990 ran a greater risk of distant-stage diagnosis of breast cancer. Yet when some of these neighborhoods gentrified, women there ran a higher risk of distant-stage metastasis of breast cancer than did women living in similar neighborhoods that did not gentrify.

The UIC researchers suggest that women living in upward-changing neighborhoods may experience disruption of social networks, interruption in access to health care services, and stress relating to social isolation and financial problems as housing costs rise. ■

The study was funded by a National Cancer Institute grant to the UIC Center for Population Health and Health Disparities, one of eight National Institutes of Health-funded centers to study racial and ethnic disparities in health.

Co-authors include Young Cho, Kathryn Weaver (now of the National Cancer Institute), Kirak Ryu, Richard Campbell, Therese Dolecek, and Richard Warnecke of UIC.

Barrett is bringing this research to the classroom this spring in an undergraduate sociology course, Health, Race and Neighborhoods.

UIC ranks among the nation's top 50 universities in federal research funding and is Chicago's largest university with 25,000 students, 12,000 faculty and staff, 15 colleges and the state's major public medical center. A hallmark of the campus is the Great Cities Commitment, through which UIC faculty, students and staff engage with community, corporate, foundation and government partners in hundreds of programs to improve the quality of life in metropolitan areas around the world.

CT RADIATION
Continued from page 1

My colleague Dr. Dwight Heron, Vice Chairman for Clinical Affairs, Department of Radiology, University of Pittsburgh Cancer Institute, and Chairman, Department of Radiation Oncology, UPMC Shadyside, spends his days diagnosing and treating cancer patients with the help of modern computerized diagnostic scanning systems. I asked him what he thought about the current enthusiasm for CT and PET scans of healthy people.

Heron says, "It's a big problem. Radiologists appreciate that we could be creating more cancer in young people by what happens in emergency rooms all over the country today."

Heron referred me to the 2007 white paper on radiation in medicine, where the American College of Radiology (ACR) noted that in the past quarter century, the amount of radiation the U.S. population receives each year from medical imaging has increased fivefold. A single computerized scan of the stomach today can give half the dose that was shown to induce cancer in those who survived the atomic bomb blasts in Japan. The ACR advises that "the current annual collective dose estimate from medical exposure in the United States has been calculated as roughly equivalent to the total worldwide collective dose generated by the nuclear catastrophe at Chernobyl."(3)

Let me translate this. Modern America's annual exposure to radiation from diagnostic machines is equal to that released by a nuclear accident that spewed the equivalent of hundreds of Hiroshimas across much of Russia and Eastern Europe. In 2005, the Chernobyl Forum, an organization led by the International Atomic Energy Agency and the World Health Organization, estimated that about 6.5 million people were exposed to 5.6 Roentgen per second (R/s). This is equivalent to 20,000 Roentgen per hour (R/h). A lethal dose is around 500 Roentgen over five hours, so in some areas unprotected workers received fatal doses of radiation within several minutes from the Chernobyl explosion in 1986. Conservative estimates are that as a result of this massive explosion there will be 30,000 to 60,000 more cancer deaths that would not otherwise have occurred.(4)

Concerns about unnecessary medical radiation in young children today are now ricocheting throughout the medical community. A group of Yale researchers, looking at current patterns, estimates that in one year, 700 people will die from cancers associated with head CTs and 1,800 will die from radiation-induced cancer from abdominal examinations carried out when they were infants.(5) Reduced brain function, learning problems and lowered IQ from such potentially unnecessary and inappropriate exams is not easily calculated, but it cannot be trivial.(6)

Most physicians and the rest of us are unaware of the dangers shown in the chart below.

To put these doses into perspective, even a properly calibrated CT scan of a child's stomach can be equivalent to six hundred chest X-rays, while one of an infant's head can be equivalent to a few thousand. Imagine a lifetime of emergency room visits, with repeated scans, and it becomes clear that these risks could create a major cancer burden of the future.

Emergency room physicians have not yet gotten the message. A survey of emergency room doctors at a major medical center found that none of them was aware that some of the diagnostic procedures they were ordering increased the risk of cancer for their patients thirty years later.

Of the more than 10 million cancer survivors in this nation, those who underwent extensive radiation to treat or find their disease, like Elizabeth Edwards, wife of Sen. John Edwards, and Tony Snow, former press secretary to the White House, or those who had the disease as young children, face lifetime risks of other cancers as a result. Other studies show that the risks of cancer from radiation in cancer patients treated for Hodgkin's disease could even be greater than those of the atom bomb survivors. This apparently greater vulnerability of the weakened to the damaging effects of radiation is something that researchers like Alice Stewart and Rosalie Bertell warned about nearly half a century ago.(7) The world is catching up with them.

Stewart's work on the dangers of radiation in England was simple and powerful. She visited every county and county borough health department in the country, handing out questionnaires that asked mothers of children born between 1953 and 1955 about things that happened to them when they were pregnant. Within a year, she had determined that the mothers of leukemic children were three times more likely to have had routine x-rays of their abdomens during pregnancy. These results, published in the Lancet in 1956, flew in the face of assurances from obstetricians that the practice was harmless. Stewart's findings also upset those advocating the continued use of nuclear weapons and testing. The year 1956 was the peak year for above-ground nuclear weapons and testing and radioactive fallout. Obstetricians and nuclear weapons advocates alike maintained that small doses of radiation were harmless. In fact, Stewart's findings showed that a single dose of diagnostic x-rays early in pregnancy more than doubled the child's risk of leukemia.(8)

There is no question that in medical emergencies, CT scans save lives and eliminate exploratory surgery. But, experts increasingly agree (see chart below) that the number of scans can be reduced without compromising the ability to deliver health care. For healthy individuals, and especially children, if a CT scan is recommended, it is important to consider whether another diagnostic tool, such as Magnetic Resonance Imaging or ultrasound, neither of which involves radiation, could be used instead. ■

References

1. Janette Sherman, interview by author, December 11, 2006.
2. Cardinal Health. Facts. Accessed 2008 Feb. 14.
3. Amis ES Jr, Butler PF, Applegate KE, Birnbaum SB, Brateman LF, Hevezi JM, Mettler FA, Morin RL, Pentecost MJ, Smith GG, et al. 2007. American College of Radiology white paper on radiation dose in medicine. Journal of the American College of Radiology 4(5): 272-84.
4. Medvedev ZA. 1990. The legacy of Chernobyl. New York: W.W. Norton.
5. Brenner D, Elliston C, Hall E, Berdon W. 2001. Estimated risks of radiation-induced fatal cancer from pediatric CT. American Journal of Roentgenology 176(2): 289-96.

   See also:
   Brenner DJ and Hall EJ. 2007. Computed tomography -- an increasing source of radiation exposure. The New England Journal of Medicine 357(22): 2277-84.

   Bertell R, Ehrle LH, Schmitz-Feuerhake I. 2007. Pediatric CT research elevates public health concerns: Low-dose radiation issues are highly politicized. International Journal of Health Services 37(3): 419-39.
6. Rabin RC. 2007. With rise in radiation exposure, experts urge caution on tests. The New York Times; Science Tuesday: F5 (June 19).
7. Richmond C. 2002. Alice Mary Stewart. BMJ 325(7355): 106.
8. Giles D, Hewitt D, Stewart A, Webb J. 1956. Malignant disease in childhood and diagnostic irradiation in utero. Lancet 271(6940): 447.

Radiation Risks of CT Scans

Exam Type	Machine Setting*	Relevant Organ	Approx. Equivalent Dose to Relevant Organ (mSv)	Equivalency in Chest X-rays .15-.01 mSv**
Pediatric Head	CT Unadjusted	Brain	60	400-6000
Pediatric Head	CT Adjusted	Brain	30	200-3000
Ped. Abdominal	CT Unadjusted	Stomach	25	166-2500
Ped. Abdominal	CT Adjusted	Stomach	6	40-600
Chest X-ray (PA/lateral)	n/a	Lung	.01/.15	.01-.15
Screening Mammogram	n/a	Breast	3	20-300

Source: Society for Pediatric Radiology and National Cancer Institute, 2002. Radiation & Pediatric Computed Tomography: A Guide for Health Care Providers.
* "Unadjusted" refers to using the same settings as for adults. "Adjusted" refers to using settings adjusted for body weight.
** Chest-x-ray equivalency based on NCI estimates in this table

Letters to the Editor

Bill Couzens, Founder, LessCancer.org

Dear Lesscancer.org:

You'v got to be kidding: cleaning, lawn and gardening supplies that can give you cancer! Give me a break!
Denver, Colorado

Dear Denver,

If cancer were as easy to pinpoint as to one exposure, the work of scientists would be complete. What scientists will tell you is that there are some chemicals and other environmental toxins that have been linked to cancer. For some of those exposures the data is quite strong and for others it is still pending. Often when it comes down to a simple choice, it may be best to go without, at least until the data is complete. The assumption of "safety" should never be made.

It does seem silly that something as seemingly benign and common as household cleaning and or gardening/lawn care products could actually cause harm. Often these are the things that take on the natural landscape of our homes, sometimes with fun, appealing names and sunny labels that sound safe and in many cases look like healthful, helpful products.

Throughout history, there have been many "great" ideas of convenience that unfortunately have had some unintended negative outcomes to the environment and human health.

Legal and invisible do not translate to safe.

It's important to recognize there are chemicals that are valuable to society, but others have unintended negative impacts on the environment and human health to include cancer.

The EPA has broad authority to issue regulations designed to gather health/safety and exposure information on, require testing of, and control exposure to chemical substances and mixtures. EPA's TSCA (Toxic Substances Control Act) Inventory currently contains over 70,000 existing chemicals. These chemicals have a whole host of outcomes.

For instance, in recent years, scientists, as the EPA reports, have proposed that there are certain chemicals that might be disrupting the endocrine system of humans and wildlife. A variety of chemicals have been found to disrupt the endocrine systems of animals in laboratory studies, and compelling evidence shows that endocrine systems of certain fish and wildlife have been affected by chemical contaminants, resulting in developmental and reproductive problems.

The term "endocrine disruptors" is used to describe substances that are not produced in the body but act by mimicking or antagonizing natural hormones. It is thought that endocrine disruptors may be responsible for some reproductive problems in both women and men as well as for the increases in the frequency of certain types of cancer. Endocrine disruptors have also been linked to developmental deficiencies and learning disabilities in children. Because hormone receptor systems are similar in humans and animals, effects observed in wildlife species raise concerns of potential human health effects.

During fetal development and early childhood, low-dose exposure to these chemicals may have profound effects not observed in adults such as reduced mental capacity and genital malformations.

A number of pesticides have been implicated as endocrine disruptors, primarily in aquatic and wildlife species.

"Pesticides" is an umbrella term to include items like insecticides, fungicides and herbicides, which are found in almost all homes.

Many pesticides can also pose risks to people. Runoff is responsible for the presence of most pesticides found in surface waters. The pesticide concentrations in surface waters tend to be highest after the first storm following application.

Pesticides may also enter source water from accidental spills, in waste water discharges, or as runoff from urban and suburban areas.

We have little understanding of the synergy of blending interacting chemicals and how those outcomes affect human health.

For me, "suspected" harm is reason enough when making choices for my own family, especially when it comes to the unnecessary exposures such as lawn and garden pesticides, a choice of toys, and/or some types of foods that are known and/or suspected of posing a risk to human health.

If there is an opportunity to reduce the unnecessary and preventable environmental exposures that may be suspected of doing harm to human health, as parents we should take precautionary steps if we can and especially when it comes to children. ■

Dear Lesscancer.org:

Why is it recommended by experts that schools as a precaution not apply/paint or spray things like pesticides during school hours?
Middleburg Virginia

Dear Middleburg,

Children are different from adults. Pound for pound, children eat more food, drink more water, and breathe more air than adults. Thus, they are likely to be exposed to substances in their environment at higher levels than are adults. Exposure to toxicants may result in irreversible damage, even though the same exposure to a mature system may result in little or no damage.

While sound science is critical when working to reduce the environmental exposures that are both "suspected" and/ or "known" to cause harm to human health, in the case of children we need to be especially sensitive to how these exposures may impact young bodies.

Scientists tell us that 2/3rds of all cancers are thought to be environmental and/or come from outside of the body.

Cancer in most all cases is manufactured, and because of increased incidences of cancer, we need to be mindful of all the things that could play a role in those increased numbers and prevent those environmental exposures linked to cancer when possible. ■

Dear Lesscancer.org:

Why is it that you are advertising the harms of secondhand smoke? Doesn't everyone get it?
The Plains, Virginia

Dear Plains Virginia,

Sadly lots of people don't get it. According to the Centers for Disease Control and Prevention (CDC), 44.5 million US adults were current smokers in 2006 (the most recent year for which numbers are available). This is 20.8% of all adults (23.9% of men, 18.0% of women) — more than 1 out of 5 people.

That is a lot of secondhand smoke.

The National Institutes of Health reports cigarette smoking causes 87 percent of lung cancer deaths. It is also responsible for many other cancers and health problems. These include lung disease, heart and blood vessel disease, stroke and cataracts. Women who smoke have a greater chance of certain pregnancy problems or having a baby die from sudden infant death syndrome (SIDS). Your smoke is also bad for other people — they breathe in your smoke secondhand and can get many of the same problems as smokers do.

The health risks caused by cigarette smoking are not limited to smokers. Exposure to secondhand smoke, or environmental tobacco smoke, significantly increases the risk of lung cancer and heart disease in nonsmokers, as well as several respiratory illnesses in young children. (Secondhand smoke is a combination of the smoke that is released from the end of a burning cigarette and the smoke exhaled from the lungs of smokers.) The U.S. Environmental Protection Agency (EPA), the National Institute of Environmental Health Science's National Toxicology Program, and the World Health Organization's International Agency for Research on Cancer (IARC) have all classified secondhand smoke as a known human carcinogen—a category reserved for agents for which there is sufficient scientific evidence that they cause cancer. The U.S. EPA has estimated that exposure to secondhand smoke causes about 3,000 lung cancer deaths among nonsmokers and is responsible for up to 300,000 cases of lower respiratory tract infections in children up to 18 months of age in the United States each year. For additional information on ETS, see the NCI fact sheet Environmental Tobacco Smoke, which can be found at www.cancer.gov/cancer topics/factsheet/Tobacco/ETS on the Internet.

Cigarette smoke contains about 4,000 chemical agents, including over 60 carcinogens. In addition, many of these substances, such as carbon monoxide, tar, arsenic, and lead, are poisonous and toxic to the human body. Nicotine is a drug that is naturally present in the tobacco plant and is primarily responsible for a person's addiction to tobacco products, including cigarettes. During smoking, nicotine is absorbed quickly into the bloodstream and travels to the brain in a matter of seconds. Nicotine causes addiction to cigarettes and other tobacco products similar to the addiction produced by using heroin and cocaine.

Unfortunately there are many places that still allow smoking in public places. ■

SKIN CANCER FOUNDATION

For more information, visit www.skincancer.org

PRODUCE GUIDE REFERENCES
Continued from page 2

For more information: Kathleen Schuler, MPH, Environmental Scientist Tel.: (612) 870-3468, Email: kschuler@iatp.org or visit iatp.org/foodandhealth.

References

1. Pesticide Action Network North America. May 2004. Chemical Trespass Pesticides in Our Bodies and Corporate Accountability. panna.org.

2. Schattenberg et al. 1996. Effect of household preparation on levels of pesticide residues in produce, Journal of AOAC International 79(6): 1447-53.

3. Pirog, R et al. June 2001. Food, Fuel and Freeways: An Iowa Perspective on How Far Food Travels, Fuel Usage, and Greenhouse Gas Emissions. Leopold Center for Sustainable Agriculture at Iowa State University, Ames Iowa. www.leopold.iastate.edu.

4. Meter K & Rosales J, 2001, *Finding Food in Farm Country, The Economics of Food and Farming in Southeast Minnesota*. Community Design Center.

5. EPA, *2000 Estimated Per Capita Water Ingestion in the United States* www.epa.gov/waterscience/drinking/percapita/.

6. Bourn D and Prescott J, 2002. A comparison of the nutritional value, sensory qualities , and food safety of organically and conventionally produced foods, Critical Reviews in Food Science and Nutrition.

7. The Environmental Working Group, www.ewg.org or (202) 667-6982.

8: Groth, E., Benbrook, B and Lutz, K. 1999. *Do You Know What You Are Eating? An Analysis of Government Data on Pesticide Residues in Food.* Consumers Union of the United States.