

The politics of cancer

Why the medical establishment blames victims instead of carcinogens

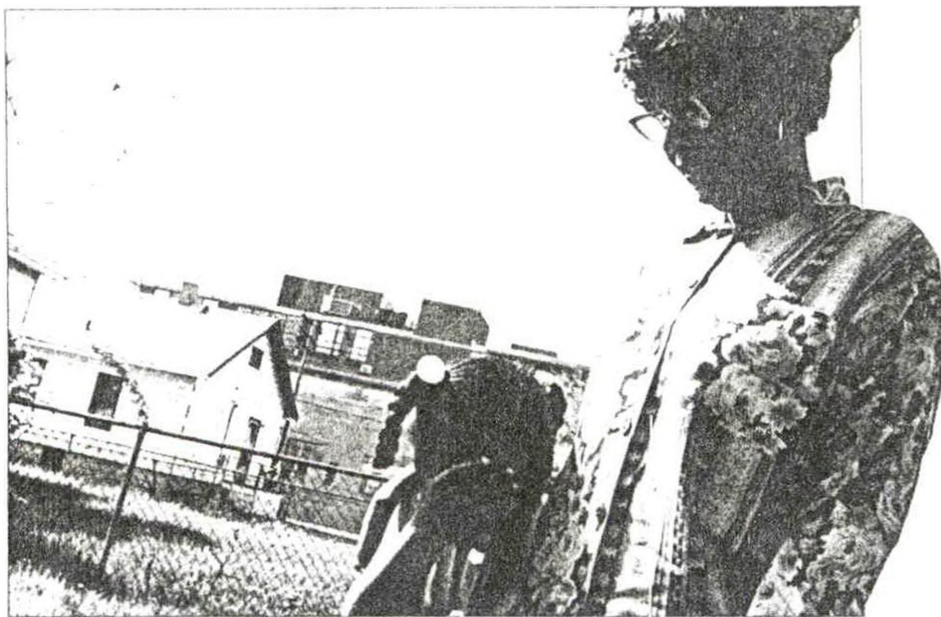
In a tragic way, cancer has become the common thread that unites all Americans. Almost everyone knows someone who has suffered with this terrible disease. Recently, the rising rate of breast cancer has prodded many women to look into the political dimensions of cancer treatment and research — and their findings are extremely troubling. While millions and millions of dollars are poured into the search for a cure, reports investigative reporter Monte Paulsen in the Detroit weekly *Metro Times*, slim attention is paid to preventing cancer, or to the role environmental factors play in causing the disease. The Worldwatch Institute, in an accompanying article, reports that cancer is not the only danger posed by our large-scale exposure to toxins in the environment. Chemicals and other by-products of modern life appear to be weakening many people's immune systems, nervous systems, and endocrine systems. Toxic exposure is shaping up as a new American epidemic, which Lonny Shavelson has documented in the photographs (from the book *Toxic Nation*, Wiley & Sons, 1993) that are featured throughout the section.

Ronda LeBlanc-Sylvester doesn't know whether toxic chemicals from the

paint factory she lived next to for 30 years caused the breast cancer that threatens to end her life at age 37.

Neither do her doctors.

Neither do the experts at the National Cancer Institute, which has close ties to major chemical companies and



Ronda LeBlanc-Sylvester and her daughter Ria

Visiting the neighborhood on Detroit's west side where she grew up, Ronda wonders whether her breast cancer was caused by toxic fumes from a paint factory that operated nearby.



LONNY STAVELSON / IMPACT VISUALS

Mary Ellen Wilson and her son, daughters, and grandchild

Mary Ellen Wilson lives on a creek downstream from a tannery near Middlesboro, Kentucky. She says her family had an unexpected death each year between 1981 and 1986. Her daughter, mother, sister, brother, and niece all lived nearby—and all died of cancer. A grandchild died in the womb. Her son Tom (left) was born without fingers. "When I heard about the [chemicals in the] water, I wanted to grab whoever did this and slap him silly. I couldn't commit murder. But that's what the city and the tannery did."

has systematically ignored environmental pollution as a cause of cancer.

Neither do researchers affiliated with the American Cancer Society, which shortchanges breast cancer research and routinely discredits doctors who study "unproven" causes of cancer—such as environmental carcinogens.

And neither do the companies that manufacture those carcinogens, companies like Imperial Chemical Industries, which makes toxic pigment like that used in the automobile paint factory near where Ronda grew up. The company also sells the cancer treatment drug Ronda took for a while and helped fund a recent effort to discredit the idea that environmental carcinogens cause breast cancer.

No, Ronda doesn't know what caused the breast cancer that a radical mastectomy and six months of

chemotherapy have failed to cure. She doesn't know what caused it to spread to her bones and finally to her liver. And she doesn't know how long she has to live.

But she wonders.

"I can still smell those fumes today," says Ronda. "I remember that smell like I still lived there."

The National Cancer Institute (NCI) and the American Cancer Society (ACS) have spent more than \$1 billion "combating" breast cancer since 1971, when President Richard Nixon signed the National Cancer Act into law and declared a "war on cancer."

Twenty-two years later, cancer is winning. And breast cancer is leading the assault.

This year, an estimated 183,000 Americans will be diagnosed with breast cancer. Nearly all of them will be women. A third of them will die. In the two short decades since Nixon began shoveling money into the

NCI, breast cancer has claimed more U.S. lives than the Vietnam War, the Korean War, World War I, and World War II put together.

"One thing I know," says Ronda. "If men were dying of breast cancer as fast as women are, there'd be a whole lot more known about it."

Fund Breast Cancer Research." "We Won't Be Silent Anymore." "The Wife You Save Might Be Your Own."

These were among the messages displayed on placards in Washington, D.C., last spring by a small but angry crowd of women protesting an epidemic that strikes one in nine U.S. women.

The May 2 rally kicked off a summer-long effort by the two-year-old National Breast Cancer Coalition (NBCC) to support more federal funding for breast cancer research. NBCC planned to present the letters and petitions to President Clinton in October, as part of National Breast Cancer Awareness Month.

These angry women join a growing movement of doctors, scientists, environmentalists, and public health activists who criticize the NCI, the ACS, and the nation's top cancer research centers—collectively, "the cancer establishment"—for shortchanging research on the causes and treatment of breast cancer, and for virtually ignoring strategies to prevent the disease.

Breast cancer accounts for 32 percent of cancer incidence in women and 16 percent of all cancers, but breast cancer has not received as much attention as cancers of the lung, colon, and prostate, which predominantly strike men. The ACS spent only 4.5 percent of its \$380 million 1992 budget on breast cancer research; the NCI allocated only 10 percent of its \$2 billion 1993 budget.

Today's treatments for breast cancer are the same ones that were available 50 years ago: surgery, radiation, and chemotherapy—or slash, burn, and poison, as bitter patients often call them. In many cases, these techniques actually shorten patients' lives.

Even less progress has been made in identifying the causes of breast cancer. The cancer establishment identifies three primary risk factors: heredity, hor-

The cancer establishment is more interested in treating breast cancer than in preventing it.

mones, and diet. But there are major questions about each of these factors.

Women with a family history of breast cancer are statistically more likely to develop the disease themselves, but no study has established whether this is a result of genetic disposition or shared environment.

The experiences of women who migrate from cultures with lower rates of breast cancer to countries



S A T I S F A C T I O N

Halting pesticides in Marin County

I live on the beautiful and pristine Tomales Bay in Marshall, California. I am celebrating a very big environmental, political, and personal victory: The California Department of Transportation (CALTRANS) will never spray their toxic weed killers along Highway 1 in Marin County again.

Our fight began eleven years ago when our community learned that CALTRANS sprayed toxic chemicals three to four times a year along our roadsides. We wanted to educate the community about the health risks and harmful effects that CALTRANS was posing to our area. To do this, we formed a group, Mow Our Weeds! (MOW!). Through petitions, the media, and community and educational events we informed the community that there was a viable alternative to the use of pesticides.

Until then I had lived in idyllic Marshall complacently pursuing my work as an artist. It never occurred to me that the air I breathed, the water I drank, the ground I walked on were anything but clean. That day I woke up.

I spent the next two years on the telephone trying to find someone, anyone, to stop the spraying. Finally, fed up and frustrated that our message was falling on deaf ears, we decided to commit civil disobedience by physically stopping the trucks. We simply called CALTRANS and requested their spray schedule and then called our local TV stations and newspapers. With cameras rolling, several of us (it doesn't require many people to satisfy the cameras) found the truck and stopped it.

Soon after this milestone,

MOW! joined with environmental groups to pressure CALTRANS into doing a statewide Environmental Impact Report (EIR). The EIR is legally required by the California Environmental Quality Act, but it took our groups to make the agency actually complete the EIR. After three years and \$800,000, the final EIR on the CALTRANS vegetation control program offers a refreshing statement in favor of reducing or eliminating herbicide use along the state's highways.

Our fight has moved on to monitoring and enforcing the EIR—and we are organized to do just that!

Looking back, I see that of all the tactics we used to stop the spraying, the only ones that worked were civil disobedience and legal action. When anti-toxics groups call for advice, I tell them not to waste time pleading, negotiating, and lobbying. My advice to them is, "Block the spray trucks and take them to court. And don't wait, do it now!"

Over the years of struggle, the loneliness I felt at first has been replaced by the satisfaction of being at the leading edge of a public awakening. A great personal satisfaction comes also from knowing that one person like me—shy of speaking in public and with no previous political experience—can make a difference.

—Donna Sheehan
Everyone's Backyard

Excerpted with permission from Everyone's Backyard (April 1993). Subscriptions: \$25/yr. (6 Issues) from Citizens Clearinghouse for Hazardous Waste, Box 8808, Falls Church, VA 22040.



Felipe Franco and his grandmother Maria Cervantes

Felipe's mother Ramona picked grapes in California while she was pregnant with him. One of the pesticides most frequently used on those fields was structurally similar to thalidomide, which caused thousands of infants to be born without arms and legs in the 1960s. "In the fields, they never tell us what chemicals they are using," Ramona says.

with higher rates suggest that a woman's environment is more important than her genes. Japanese women, for instance, develop far fewer breast cancers than do U.S. women. But when they immigrate here, they soon develop breast cancer at rates comparable to U.S. women.

Nor does genetic vulnerability explain the jump in breast cancer incidence during the past half-century—from 1 in every 20 women during the 1950s to 1 in 9 today.

There's also a relationship between reproductive hormones and breast cancer: Women with higher levels of hormones such as estrogen are at greater risk. The cancer establishment blames rising levels of estrogen now found in women's bodies on several trends: Girls are starting to menstruate at younger ages, many women do not bear children until they are older, and some use estrogen-based oral contraceptives for long periods of time. But these changes do not explain the spiraling breast cancer epidemic. Nor do they explain why women are menstruating earlier. The cancer establishment largely ignores environmental factors such as consump-

tion of meat products containing animal growth hormones and exposure to hormone-mimicking industrial chemicals, which could explain both earlier menstruation and increased levels of hormones.

Dietary fat is the most controversial risk factor associated with breast cancer. In the 1960s, epidemiologists observed that nations in which people ate more fat had higher breast cancer rates, and that fat consumption in the United States rose during the same period of time the incidence of breast cancer rose. They theorized that fat must promote breast cancer. But numerous subsequent studies have failed to demonstrate a consistent relationship between breast cancer and dietary fat. And laboratory studies have not established any mechanism by which dietary fat could promote breast cancer. One possibility ignored by cancer establishment researchers: Perhaps it's not the fat that increases the risk, but chemicals in the fat. Many known carcinogens concentrate in animal fat, so people who eat more fat also absorb more chemicals.

But the most serious problem with the causes proposed by the cancer establishment is simple: Three out of every four women who develop breast cancer have none of these primary risk factors.

"No one has any idea what's really going on here," says Dr. Susan Love, co-founder of the National Breast Cancer Coalition.

A growing number of doctors and biologists *outside* the cancer establishment have a radically simple proposal: "Cancer," says Sandra Steingraber, a biologist at Columbia College in Chicago, "is caused by carcinogens. Astonishingly, you can read entire tracts about cancer published by the ACS and the word *carcinogen* never comes up. These seemingly authoritative agencies have framed the cause of the disease as a problem of *behavior* rather than as one of *exposure* to disease-causing agents."

By selectively emphasizing the roles of hormones and diet, the cancer establishment has shifted blame away from the producers of carcinogens to cancer victims

themselves. The "new age" view of health, which suggests that disease can be caused by emotional and mental factors, unwittingly supports this gambit by promoting the idea of personal responsibility for disease. And by emphasizing heredity, the cancer establishment encourages women to blame their mothers, which Steingraber says many are inclined to do anyway.

Blaming the victim may be appropriate for diseases such as lung cancer—where there is a clear behavioral culprit, smoking—but it simply doesn't hold up against the evidence about breast cancer. It is, however, a convenient way to avoid larger environmental questions.

For the first time in the history of the world, every human being is subject to contact with dangerous chemicals from the moment of conception until death," wrote Rachel Carson. Her 1962 book, *Silent Spring*, which highlighted the deadly effects of pesticides such as DDT, gave birth to the modern environmental movement.

DDT and the other toxic chemicals investigated by Carson are just a handful of the more than 10,000 synthetic chemicals, known as organochlorines, created when chlorine gas is bonded to carbon-rich organic matter. This large class of chemicals includes a handful of the most toxic and carcinogenic chemicals anywhere: DDT, PCBs, CFCs, and dioxins.

(A growing chorus of doctors, scientists, and environmental activists want to ban industrial use of all organochlorines. Last year, 13 European nations signed an agreement that called for the elimination of industrial use of chlorine-based chemistry. A worldwide campaign to ban the industrial use of chlorine is being led by Greenpeace. These challenges represent a major threat to the chemical industry. Half of all commercial chemistry is based on chlorine.)

Organochlorines concentrate in the fatty tissues of animals. As those animals are eaten by others, the synthetic chemicals move up the food chain and their concentrations rise exponentially. Creatures at the top of the food chain accumulate high concentrations of organochlorines.

"In less than two decades of their use," wrote Carson, "these synthetic pesticides have been so thoroughly distributed throughout the animate and inanimate world that they occur virtually everywhere."

Including in the human body: More than 177 organochlorines have been found in the tissues of the general population of the United States and Canada.

Organochlorines have been linked to epidemic health problems in fish, birds, reptiles, and mammals. Their effects include infertility, birth defects, miscarriages, immune system suppression, metabolic dysfunction, behavioral disorders, and hormonal abnormalities.

And many of the chlorine-based compounds are known to cause cancer in humans, though the ways they promote the disease vary. PCBs and vinyl chloride cause cancer directly. DDT promotes existing cancers

by mimicking or interfering with human hormones. Dioxins suppress immune systems and enhance the carcinogenic effect of other chemicals.

Because these chemicals tend to strike reproductive systems first, and because many of them are known to be carcinogenic, there is good reason to suspect that



P E R S I S T E N C E

Making the workplace safer in Louisiana

In 1984, BASF, a German pesticide manufacturer, refused to negotiate a contract with the union at its plant in Gonzales, Louisiana, and literally locked the union members out of the factory and out of their jobs. The workers spent the next five years trying to get their jobs back.

The campaign became a crusade to publicize BASF's poor environmental and worker protection record. In an alliance with environmentalists, the workers began talking about the company's environmental and workplace safety violations. They built highway billboards calling BASF the "Gateway to Cancer Alley," referring to the high incidence of cancer in a stretch of the Mississippi River Valley between Baton Rouge and New Orleans where BASF and many other chemical plants are located.

The campaign made members of the Oil, Chemical, and Atomic Workers Union (OCAW) working at other factories more aware of and outspoken about the hazards of their jobs. Duke King, for example, worked for nearby Vulcan Chemical, which produces solvents. When cattle grazing near the company's dump site were found to have unacceptable levels of hexachlorobenzene—a by-product of solvent production that can damage the liver and immune

system and cause cancer—the union demanded that the company test Vulcan workers' blood for the chemical. They found levels that were often six times higher than what the state said was safe in fish. Duke, whose own blood showed high levels of "hex," worked with the union to press for changes in the way the chemical was handled at Vulcan. As a result, lead levels have dropped, but epidemiologists say the effect of chronic contamination can't be dismissed.

In 1989, the BASF workers went back to their jobs but they weren't the same people: "Fifteen years ago, I thought that if you wanted a job, you had to put up with hazardous stuff. You live and learn," said Bobby Schneider, secretary-treasurer of the OCAW local. Today, the members of OCAW Local 4-620 are proud to be considered a part of Louisiana's environmental movement. In fact, the local now works with the National Toxics Campaign Fund to fight environmental racism and bring proper water treatment facilities and sewers to area communities.

—Dana Leibman
Friends of the Earth

Excerpted with permission from *Friends of the Earth* (Oct. 1992). Subscriptions: \$25/yr. (10 issues) from 218 D St. SE, Washington, DC 20003.

they play a role in promoting breast cancer. Epidemiological evidence confirms that suspicion:

- Women in Long Island's Nassau and Suffolk counties, which were routinely blanketed with aerial sprayings of DDT during the 1950s, suffer among the highest rates of breast cancer in the nation.

- Female chemical workers exposed to high levels of dioxin in a German pesticide plant experienced higher rates of breast cancer and double the cancer mortality rate of the German population as a whole, according to a 1991 study published in the British medical journal *The Lancet*. A study of U.S. chemical workers produced similar results.

- High rates of breast cancer have been found among women professional golfers, most of whom have played daily since their youth. Many of these women suspect that they have been poisoned by the chlorine-based herbicides and pesticides with which most golf courses—and many home gardens—are saturated.

- According to a U.S. Environmental Protection Agency study, counties with hazardous waste sites were 6.5 times more likely to have elevated breast cancer rates than counties with no such sites.

Even more significant statistically are recent studies that show the reverse relationship—high levels of organochlorines in women who *already have* breast cancer. A study of 229 New York City women showed that those who developed breast cancer had substantially higher levels of DDE (a DDT by-product) and slightly higher levels of PCBs in their blood than did the

women who did not develop breast cancer. The study suggests that women with high levels of DDE are four times more likely to develop breast cancer.

"These findings suggest that environmental chemical contamination with organochlorine residues may

One of the largest chemical companies in the world is the sole sponsor of Breast Cancer Awareness Month.

be an important [causal] factor in breast cancer," concludes Dr. Mary Wolff, the study's principal author.

Studies done in Israel, the one place in the industrialized world where breast cancer rates aren't rising, also suggest an organochlorine connection. Through the 1970s, Israeli breast cancer rates were among the highest and fastest-rising in the world—as were Israeli levels of organochlorine pesticides in human milk and tissue. Then, in 1978, Israel aggressively phased out several pesticides. Levels of organochlorines in mother's milk dropped quickly, and after a decade the incidence of breast cancer among *younger women* also began to fall. This, the study's authors say, is strong evidence that the pesticide phase-out caused the decline.

None of these studies, on its own, proves a connection between organochlorines and breast can-

Safe at home

How to make your household healthier

Choose natural household cleaners.

An important—and easy—place to start is getting rid of all those heavy-duty chemical cleaners lurking beneath your sink. The ingredients in many common cleaning products—including ammonia, oven cleaners, glass cleaners, and disinfectants—have been linked with health problems from skin irritation to cancer. So instead of reaching for these toxic troublemakers, you can purchase safer cleaning products—most made from plants rather than from nonrenewable petroleum—at a health food store or Green specialty store, or opt to make your

own at home. For recipes for all kinds of natural homemade cleaners, see Debra Dadd's *Nontoxic, Natural & Earthwise* (Jeremy P. Tarcher, 1990).

Create a healthy bedroom.

There is no better place to start the process of making your home healthier than the bedroom, where we spend a third of our time sleeping. Choose natural bedding of untreated, chemical-free cotton. If your budget permits, buy a mattress and box spring made of natural, not synthetic, materials, and natural cotton or wool pillows. To reduce exposure to electromagnet-

ic radiation, position your bed so that it is not near appliances in adjacent rooms, such as on the same wall as a refrigerator. Avoid even minor EMF (electromagnetic field) sources, such as a digital clock placed too near your head. Remove carpeting from the sleeping area, since it can harbor dirt, dust, mold, mildew, and dust mites.

Seek out safe ways to cook your food. When it comes to health, *how* we cook our food may be almost as important as *what* we cook. Cooking gas, for instance, creates indoor air pollution. Make sure you have a good ventilator that opens to the outside of the house rather than one that simply recirculates the air. And open the windows if you can while you're cooking. To minimize exposure to your microwave oven, put it in an out-

cer. But together they present a compelling argument that organochlorines are at least as important a cause of breast cancer as hormones and heredity—and may explain why family, diet, and age are risk factors.

Yet not one of these findings came from within the cancer establishment. Nor have the NCI and the ACS taken much interest in them.

"The chemical agents of cancer have become entrenched in our world in two ways," wrote Rachel Carson more than 30 years ago. "First, and ironically, through man's search for a better and easier way of life; second, because the manufacture and sale of such chemicals has become an accepted part of our economy and our way of life."

Rachel Carson died of breast cancer in April 1964. She was 56 years old.

Early detection is your best protection. Don't be an easy target—get a mammogram *now*."

That's the message of National Breast Cancer Awareness Month. It's the same every October, on every one of the hundreds of thousands of posters, pamphlets, radio spots, newspaper ads, and promotional videos distributed by the event's sponsors.

But few of the women who participate in Breast Cancer Awareness Month are aware that an international chemical giant—Imperial Chemical Industries (ICI)—pays the event's bills and cashes in on its message.

ICI is one of the largest chemical companies in the world. Its annual sales exceeded \$26 billion in 1991. It

stands among the world's largest producers of chlorine- and petroleum-based products, including plastics, explosives, pharmaceuticals, and paint. ICI also has a dismal environmental record: One Quebec paint-pigment subsidiary single-handedly contributes a third of the toxic chemicals dumped into the St. Lawrence River, according to the government agency Environment Canada.

ICI co-founded National Breast Cancer Awareness Month (BCAM) nine years ago, together with Cancer Care Inc. (a support group) and the American Academy of Family Physicians. Since then, BCAM has become fully integrated with the cancer establishment. The ACS and the NCI are represented on the BCAM board. The event has become fashionable among private companies as well: Estée Lauder gave away 750,000 pink ribbons in October 1992.

ICI has been the sole financial sponsor of BCAM since the event's inception. Altogether, the company has spent "several million dollars" on the project, according to an ICI spokeswoman. In return, ICI has been allowed to approve—or veto—every poster, pamphlet, and advertisement BCAM uses. Not surprisingly, carcinogens are *never* mentioned in BCAM's widely distributed literature.

"Researchers are investigating the role of heredity, lifestyle, and diet," says one BCAM pamphlet. "But you can't assume that modifying your diet or lifestyle will make you safe from disease. Early detection is your best protection."

And what does ICI suggest that women do to

of-the-way corner of the kitchen. Always stand at least three to four feet away from the microwave while it is in use. Be extra cautious with older microwave ovens—over time, seals break down and ovens leak more. As for cookware, pans with Teflon coatings are fine for occasional use, as long as they are not scratched or overheated, but avoid plastics.

Avoid synthetic carpeting. Synthetic carpeting can mean wall-to-wall trouble. The compounds in new carpeting and the chemicals it is treated with were recently addressed by the New York State attorney general, who recommended that new carpeting carry warning labels about possible negative health effects, especially for pregnant women and small children. Avoid synthetic rugs in favor of

ceramic-tile or wood floors, with a few natural-fiber area rugs.

To combat indoor air pollution, fill your house with plants. In research conducted by retired NASA scientist Bill Wolverton, a number of common house plants were found to actually scour the air of harmful chemical fumes and toxins, including carbon monoxide, benzene, and formaldehyde.

Remove your shoes at the door. This simple act can protect crawling children from exposure to all sorts of tracked-in contaminants. Removing your shoes can reduce lead build-up by 90 percent.

Reduce the amount of plastic in your home. Plastics may cause health problems when they vaporize into the air we breathe (that familiar new carpet or shower curtain smell) or mingle with our food

and drink in plastic cookware and containers. You can start small by replacing your plastic shower curtain with a cotton one. Then consider gradually replacing plastic-coated wallpaper, plastic tiles in kitchens and bathrooms, plastic table tops, and synthetic carpets.

Seek out the least toxic alternatives for the products you use every day. Search out natural shampoos, deodorants, and other personal care products; pesticides, fertilizers, and other gardening aids; and, of course, baby products.

—Jennifer King
New Age Journal

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Nathan Robinson

Nathan Robinson, a navy shipyard worker in Richmond, California, was exposed to asbestos fibers years ago while he was overhauling aircraft carriers. In 1985 he developed cancer. "They knew what was going on. They should have given us protective clothing and masks," he says.

"protect" themselves? "Get regular mammograms. See your doctor regularly. Examine your breasts monthly."

Monthly self-exams are a good idea. But mammograms are risky and of questionable value. Regular mammograms do not improve survival rates for most women, according to several recent studies. By the time a tumor is detectable on a mammogram, it is already six to eight years old—and would soon be detected through a breast self-exam.

"There is no evidence to support introduction of service mammography for women under 50," said a recent editorial in *The Lancet*. "And some may argue that there should be a moratorium on all mammography for symptom-free women in this age group."

Why a moratorium? Because several studies suggest that the radiation accumulated through these yearly X-rays may actually be *causing* breast cancer.

"These pamphlets give the impression that if you are a good girl and get your mammograms, you'll be OK," says Steingraber. "But having a mammogram is not like flossing your teeth. A mammogram does not prevent breast cancer."

ICI also stands to profit every time a woman is diagnosed with breast cancer because an ICI spin-off, Zeneca Pharmaceuticals, sells the leading treatment

drug for breast cancer.

Nolvadex is Zeneca's trade name for tamoxifen citrate, an anti-estrogen drug with annual sales of almost \$500 million. More than half of those gross sales are in the United States, where Zeneca Nolvadex costs about \$1.38 per tablet. Generic tamoxifen, available in Canada and other countries, is as low as 24 cents per tablet. Tamoxifen doesn't cure the existing cancer, but it can help prevent the spread of the disease in patients who are diagnosed early.

ICI's sponsorship of BCAM is just one example of the many conflicts of interest that pervade the cancer establishment.

"Underlying the cancer establishment's fixation with diagnosis, treatment, and research into new drugs is an institutionalized alliance between interlocking professional and financial interests," says Dr. Samuel Epstein, a professor of occupational and environmental medicine at the University of Illinois Medical Center in Chicago. "At the hub of this alliance is the highly profitable pharmaceutical industry."

As a result, the cancer establishment remains more interested in treating cancer than in preventing it, more interested in developing drugs than in finding carcinogens.

Even the NCI's much-publicized Breast Cancer

Prevention Trial is really just another drug-pushing deal in which perfectly healthy women are being given a known carcinogen to see if it will "prevent" breast cancer. Last year, the NCI began recruiting 16,000 U.S. and Canadian women for the 10-year study. Half will receive a placebo. The other half will get tamoxifen. The idea is to see whether those on the anti-estrogen drug develop fewer breast cancers than those on the placebo.

"The tamoxifen study is particularly galling," says Epstein. "It is a scientific and ethical travesty. [The NCI's] conduct verges on criminal recklessness."

The NCI is conducting the experiment despite evidence that tamoxifen, which is known to cause blood clots, uterine cancer, and liver cancer, may harm more women than it will help. By the NCI's own estimates, tamoxifen will prevent breast cancer in only 62 of the 8,000 women who take it. The other 7,938 will risk uterine and liver cancers for the sake of "science."

And for the benefit of Imperial Chemical Industries. ICI's Nolvadex is already the top-selling cancer drug in the world. But if tamoxifen were approved for use as a preventive drug, ICI could sell even more Nolvadex. ICI used its BCAM contacts to convince the NCI to spend \$70 million of taxpayers' money on this prevention trial—no small feat, considering that the NCI's entire annual budget for breast cancer research is only \$196 million.

If the Breast Cancer Prevention Trial shows that tamoxifen is effective in preventing breast cancer, Nolvadex will become a multi-billion-dollar-a-year drug. Every woman on the planet would be a potential customer.

In the meantime, ICI continues to sell almost a half a billion dollars worth of treatment each year for a disease that it may be causing by selling tens of billions of dollars worth of toxic chemicals each year.

These are the profits of misery.

Ronda LeBlanc-Sylvester grew up in one of Detroit's tough west side neighborhoods. Standing in the grassy yard she played in as a child, Ronda remembers the names of the families who once lived in row upon row of matchbox bungalows. And she recalls that many of them had cancer, too.

Ronda used to be angry about what happened to her neighborhood and what happened to her, but Ronda doesn't have time to be angry anymore. She's been through everything the cancer establishment has to offer: mastectomy, chemotherapy, radiation. She was even on Nolvadex for about a year. She and her insurance company have spent more than a quarter of a million dollars so far.

Yet Ronda considers herself lucky. As a professional nurse, she has access to the best doctors. And she has a supportive family. Ronda worries about other women from her old neighborhood, women without health insurance, women whose male doctors ignore their concerns. The statistics bear her out: Cancer kills a higher percentage of black Americans than it does white.

As Ronda speaks, her daughter Ria runs across the

yard and throws her arms around her mother's waist. Ronda, weakened from her recent radiation treatments, staggers slightly from the hug, recovers, and smiles. Ria presses her head against her mother's belly. Her neatly braided hair touches the place where Ronda's right breast once was. Ria is five years old. She doesn't fully understand what is happening to her mother.

Neither does Ronda.

Neither does the paint factory, which according to federal records continues to release more than 100,000 pounds of toxic chemicals into the air every year.

"There's a lot of politics going on," Ronda says. "And in the meantime, a lot of women are dying."

Ronda LeBlanc-Sylvester died in late September while this article was going to press.

In the half hour you may have spent reading this story, another ten women were diagnosed with breast cancer, and another three died of it.

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MOTHERS OF EAST L.A.

Stopping an incinerator

The state of California started planning in 1985 to build the first large-scale hazardous-waste incinerator in a metropolitan area—in the middle of largely Mexican-American East Los Angeles. The residents were not informed.

The Mothers of East L.A., an activist group formed previously to fight the siting of a prison in the neighborhood, discovered a report commissioned by the California Waste Management Board outlining strategies for building incinerators in communities. According to the report, opposition is likely in liberal, college-educated, middle- and upper-income communities. So when the state plans to build an incinerator, "communities that conform to some kind of economic-need criteria should be given high priority."

"So there it was, plain and clear," says Aurora Castillo, one of the founders of the Mothers.

"Dump it in our backyard."

The fight against the incinerator lasted six years. The Mothers held midnight candlelight vigils, organized protest marches, and raised money to visit Sacramento and make their case to state officials.

The Mothers defeated the new incinerator and a subsequent plan by one of the largest chemical companies in the nation, Chem Clear, to construct a waste and sludge cleaning plant in East L.A. Their latest battle is a lawsuit against a company that wants to build a terminal for hazardous-waste trucks in the area.

"We fight for the children," says Castillo. "For so long, California has not listened to its mothers. Maybe it's time."

—Nina Schuyler
The Progressive

Excerpted with permission from The Progressive (Aug. 1992). Subscriptions: \$30/yr. (12 issues) from Box 421, Mt. Morris, IL 61054.

Better living through chemistry?

Cancer is not the only health threat posed by the daily chemical bombardment of our bodies

In the giddy early days of the Chemical Age, companies such as Union Carbide and Dow trumpeted the miraculous powers of their products in ad campaigns: better living through chemistry. And chemicals did bring us miracles, from medical advances like penicillin to a range of creature comforts our ancestors never could have imagined: crop-saving pesticides, contraceptives, synthetic fibers, dry cleaning, spoil-proof food, contact lenses ... the list is endless. All in all, scientists in this century have introduced more than 70,000 new chemical compounds in the attempt to chase every imagined inconvenience, ache, and emptiness from our lives.

But along with all their benefits, these chemical creations have a long list of consequences, including a potential to cause serious health problems. Until now, our enthusiasm has outstripped our willingness to pay attention to their long-term effects. While billions of dollars have been lavished on product development, marketing, promotion, and advertising, very little has been spent on observing chemicals' effects on living things and on the environment.

The research that has been done has led environmental health experts to one fairly solid conclusion:



Jennifer Shepherd

Jennifer Shepherd is the only survivor in a cluster of five leukemia cases among children in the town of Fowler, California. The well behind Jennifer was known to be contaminated with five cancer-causing chemicals. Since no single chemical exceeded the state's danger level, the town continued to use it for drinking water. Only when the state's acceptable level of one of the chemicals was lowered did the town stop using the water.

There is an indisputable link between exposure to some industrial substances and certain serious diseases, particularly cancer. Some scientists are now beginning to look beyond the obvious—cancer and other easily diagnosable problems—to more subtle health consequences. What they are finding puts a different

face on the miraculous claims about chemical technology that we accepted without question in a more innocent era.

In the summer of 1991, a group of 21 American scientists and other experts representing 17 different disciplines from immunology to psychiatry met at the Wingspread conference center in Racine, Wisconsin, to explore a hunch that many of them had: that the chemicals people encounter in their everyday routines—from weed killers to toxins in meat and dairy products—could be causing subtle but potent health problems other than cancer.

While it is now widely accepted that certain diseases may result from exposure to hazardous substances—leukemia has been linked to benzene, an in-

The progress that has been achieved with synthetic chemicals has come at quite a substantial cost.

redient in gasoline, for example—the Wingspread scientists are collecting evidence that chemicals also disrupt the functions of the human immune system, which defends the body against infectious disease and cancer; the endocrine system, which regulates hormones; and the nervous system. Lowered fertility, eccentric behavior, and reduced resistance to disease were among the health effects the scientists who met at Wingspread observed in wildlife and laboratory animals. The scientists determined that similar effects in humans might go unnoticed unless researchers specifically hunted for them. Since regulation of toxic chemicals has often been aimed strictly at preventing poisoning and cancer in adults, many subtle chemical effects have never been studied.

Society has understood for centuries the dangers posed by certain substances, often through casual observation of diseases that have beset workers in various "dirty" industries. Hippocrates long ago noted cases of lead poisoning among miners. With the widespread introduction of synthetic chemicals in the 20th century, chemical threats crossed the boundary from the workplace into everyday life.

In addition to creating brand-new hazards, 20th-century industry has coaxed many naturally toxic substances from rock and soil, releasing them into the atmosphere: more than 300 times as much lead, 20 times as much cadmium, and 4 times as much arsenic as is naturally present. Roughly 13 million pounds of mercury drop to earth annually in rainfall, mostly as a result of industrial activity. Since minute quantities of cadmium, lead, and mercury have proved poisonous to the central nervous system, the potential impact of this pollution is great.

No matter how far removed they are from the centers of industrial activity, people have been unable to escape exposure to this chemical bombardment. The industrial compounds called polychlorinated biphenyls (PCBs) and the pesticide DDT, for example, can be detected in the soil and in the bodies of wild animals almost anywhere in the world, as well as in people living in regions remote from industrial centers.



P O D E R M E A N S P O W E R

Cleaning up the neighborhood in Austin

People will take a lot of grief without making a fuss, but mess with their kids and you'd better stand back.

People like Mary Hernandez and her neighbors—ordinary people who just wrestled Exxon, Chevron, Mobil, and four other oil giants to the ground. Hernandez, a mother of three, lives in a working-class neighborhood in Austin, Texas. A proud mom, she dares to hope her son might grow up to be president. But he'd been sick so much she wasn't sure he'd grow up at all.

Then she and her neighbors began to pay attention to a gasoline tank farm—where oil companies store 10 million gallons of gas—located just a block away from her home. The neighbors compared notes on fumes wafting out of those tanks and on the recurring headaches, dizziness, nausea, nosebleeds, rashes, and respiratory problems they and their children were suffering.

It didn't take them long to connect the dots: Those huge storage tanks were oozing benzene and other cancer-causing chemicals. At first the neighbors were agitated. Then they got to agitating.

They organized themselves, going door to door. And they educated themselves: "I didn't even know what benzene was or what it could cause," Hernandez says, "but I sure do now."

Finally, government agencies began doing tests they should have been doing all along, and the county attorney opened a criminal investigation. This jolted five of the six oil companies to their senses. They said they would close their facilities and clean up the place. Exxon held out, but a lawsuit and a citywide consumer boycott led by the neighborhood finally brought mighty Exxon to its knees too.

Mary Hernandez says simply, "Our kids were sick. Somebody had to do something."

For more information, call or write PODER: People Organized in Defense of Earth & Its Resources, 1207 E. 2nd, Austin, TX 78702; 512/482-0503.

—Jim Hightower
Hightower Radio

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People are now exposed to thousands more chemicals than were their ancestors of a mere 150 years ago, but our understanding of how all these substances affect human beings is still elementary. A few years ago, when the National Research Council looked into just how much we know, it found that there is no information at all on the possible toxic effects of 80 percent of the 50,000 or so industrial chemicals (a category that does not include pesticides, food additives, cosmetics, and drugs) used in the United States. And there are still many important unanswered questions about the remaining 20 percent. Most chemicals, says Erik Olson, a senior attorney at the Natural Resources Defense Council, are considered innocent until they're proven guilty.

Though chemical workers often have the highest exposures to toxic compounds, other people are exposed through consumer products, through drinking water, or by virtue of living near a factory or a hazardous waste site. Some 53 million Americans apply herbicides to their lawns, and millions more use bug sprays. Shoe polish, glues, household cleaners,

varnishes, and other everyday products contain neurotoxic chemicals.

Scientists bemoan the lack of research on many toxic chemicals, but there are plenty of experiments in progress: Indeed, most of us are involuntary research subjects, exposed daily to not just one but a wide variety of chemicals, some of which remain in our bodies for months or even years. If scientists

Most of us are involuntary guinea pigs in unintentional research experiments on the safety of chemicals.

know little about the effects of individual chemicals; they know even less about their combined effects. One study of the immune responses of mice by the National Institute of Environmental Health Sciences compared the effect of a mixture of 25 chemicals commonly found in U.S. groundwater with the effects of individual chemicals. Not surprisingly, the researchers concluded that the potency of the 25-chemical mixture was greater than that of any one chemical.

What hazards are posed by simultaneous exposure to many potentially toxic chemicals? "We don't have a ghost of an idea," says Nicholas Ashford of the Massachusetts Institute of Technology.

The potential dangers and lack of research have prompted some researchers to call for a radical approach. Tom Webster, a biologist at City University of New York's Center for the Biology of Natural Systems, argues that it's time to attack the problem at the source by reducing the levels of chemicals that are allowed into the environment in the first place, a strategy that would require dramatic changes in the products and processes of the chemical industry. The targets would include benzene, chlorine, dioxin, formaldehyde, and lead.

Is it fair to continue to use people as unwitting guinea pigs in industry's quest for new manufacturing processes and products? Shouldn't the burden of safety be placed squarely upon industry?

The philosopher Hannah Arendt once observed that it is the nature of evil to appear unremarkable and commonplace. Likewise, chemicals now occupy such a familiar niche in our lives that we fail to consider their potential for damage. The time has come for stricter standards on chemicals; we should consider them guilty until they're proven innocent.

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Toxic environment resources

1 in 3: Women with Cancer Confront an Epidemic
edited by Judith Brady
Cleis, 1991 (\$10.95)
The political dimension of cancer emerges from moving and powerful personal accounts.

The Cancer Industry
by Ralph W. Moss
Paragon House, 1989 (\$14.95)
The classic exposé of the cancer establishment.

Everyone's Backyard
\$25/yr. (6 issues, incl. membership)
Citizens Clearinghouse for Hazardous Wastes
Box 6806
Falls Church, VA 22040
703/237-2249
The journal of the grassroots environmental movement. CCHW is a ten-year-old center working with over 7,000 local groups that fight toxic waste.

Greenpeace Chlorine Project
1017 W. Jackson
Chicago, IL 60607
312/666-3305
The project's recent report, Breast Cancer and the Environment: The Chlorine Connection, synthesizes all available data on the breast cancer/chlorine connection. \$5.

The Human Ecologist
\$20/yr. (4 issues, incl. membership)
Human Ecology Action League
Box 49126
Atlanta, GA 30359-1126
404/248-1898
HEAL's purpose is to serve those whose health has been adversely affected by environmental exposure; to provide information to those concerned about the health effects of chemicals; and to alert the public about the potential dangers of chemicals.

Rachel's Hazardous Waste News
\$25/yr. (52 issues)
Environmental Research Foundation
Box 5036
Annapolis, MD 21403-7036
410/263-1584
One-page newsletter providing news about and resources for environmental justice.

Toxic Nation: The Fight to Save Our Communities from Chemical Contamination
F. Setterberg and L. Shavelson
Wiley, 1993 (\$22.95)
Heartbreaking personal accounts of citizens' suffering and their efforts to stop toxic pollution.