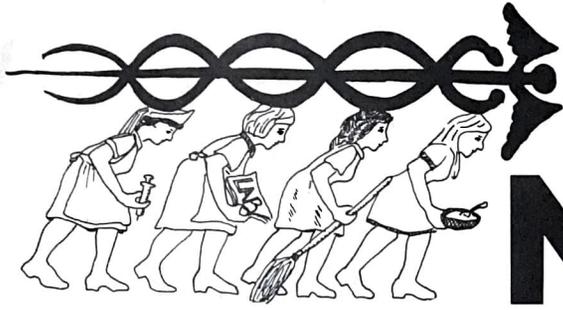


HEALTH NETWORK



Vol. 3 No.1

THE VOICE OF HEALTH CARE WORKERS IN THE TWIN CITIES

Jan. Feb. 1981



by Tom Ferguson, M.D., and Joe Graedon, M.A. _____

Millions of law-abiding Americans are physically addicted to caffeine—and most of them don't even know it. Caffeine is a powerful central nervous system (CNS) stimulant with substantial addiction potential. When deprived of their caffeine, addicts experience often severe withdrawal symptoms, which may include: a throbbing headache, disorientation, constipation, nausea, sluggishness, depression and irritability. As with other addictive drugs, heavy users develop a tolerance and require higher doses to obtain the expected effect.

Caffeine causes a dramatic increase in blood pressure, muscle tension and secretion of stomach acid. It also produces a marked increase in the basal metabolic rate, the rate at which oxygen is used by the cells. It reduces the amount of oxygen available to the brain, and has been implicated as a possible contributing factor in birth defects and fibrocystic breast disease. Animal tests show that large doses can be fatal.

Among its many effects, caffeine has only one medical use—for treating cases of poisoning by CNS depressants. If caffeine were a newly-synthesized drug, its manufacturers would almost certainly have great difficulty getting it licensed for sale, and if it were licensed, it would certainly be available only by prescription.

Yet caffeine is widely used. More than two billion pounds of coffee are consumed in this country each year. Caffeine is also found in teas, cola drinks, chocolate and many over-the-counter drugs.

Individual reactions to caffeine vary greatly, but an intake above one's individual limit produces caffeinism, a condition with symptoms indistinguishable from those of anxiety neurosis: extreme nervousness, irritability, tremulousness, chronic muscle tension, difficulty falling asleep, trouble sleeping soundly, sensory disturbances, rapid heartbeat, extra heartbeats, increased frequency of urination, frequent loose stools, gastrointestinal upsets and palpitations, alarmingly strong and rapid heartbeats.

Few clinicians consider the role that coffee and other caffeine-containing foods and drugs may play in producing these symptoms. One researcher¹ recently reviewed the medical records of 100 randomly-chosen psychiatric outpatients. Not a single record contained any information about the person's coffee or tea drinking habits—despite the fact that 42 percent of the records referred to anxiety symptoms. One wonders how many prescriptions for Valium and other tranquilizers have been handed out to clients suffering from undiagnosed caffeinism, a condition the researcher estimated might affect four to 15 percent of Americans.

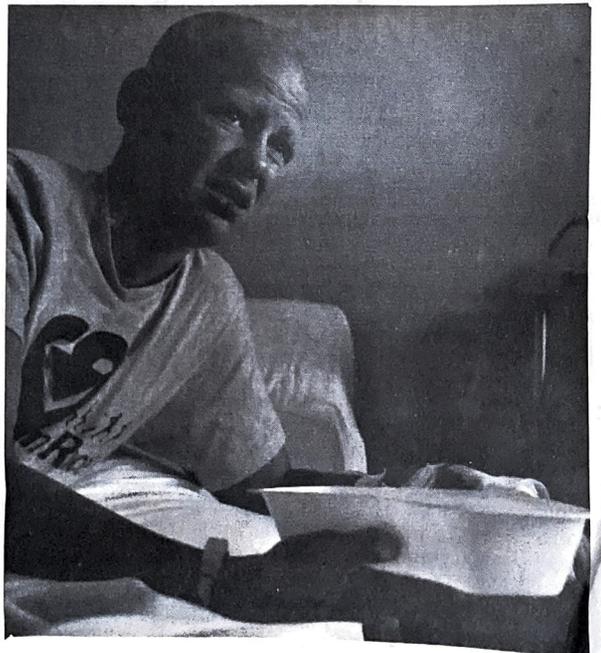
(CAFFEINE cont. on p. 3)

CULTURAL CHANGES NEEDED TO COMBAT CANCER

by Patty Malloy, RN & Jack Smith, Nsg. Student

Trying to find a cure for cancer in the laboratory and excluding the environmental influences is like trying to cure typhoid before improving sanitation. Cancer is much more than a medical problem. Cancer is a social, cultural disease. It is rooted in the polluted air and water; the tainted food, our unbalanced diets, lack of exercise and the extraordinary stresses of modern life. It was only through significant cultural advances that the great diseases of the past were wiped out. It must be the same with cancer.

An example of a cultural change to combat cancer was exemplified in a program on Nova on PBS. It was called the "Cancer Detectives of Lin Xian", a county in the People's Republic of China where one out of four persons die of esophageal cancer. The approach the Chinese scientists sought was prevention rather than cure. The team of scientists examined the water, the soil, the food they consume and their general living habits. They did not expect any one of these things alone to be the source of the cancer, but rather a combination of several factors which create the conditions in which cancer can grow. They discovered that their cooking methods further concentrated the nitrites normally found in their water; that the soil was low in a trace element, molybdenum and this helped to concentrate nitrite in the leaves of their vegetables. They found two local fungi which grow on their steamed bread while it is stored. Although the people considered this fungi to be a delicacy, it was found to be carcinogenic in rats. From the esophageal cancer (CANCER cont. on p. 5)



Health Care Industry Says "Profit First, People Second"

by Carol Murray, R.N.

To understand the current struggle going on in nursing, we must get an overview of the process going on in the health care industry. The health care industry is a particularity of our economic system. As such, as with every business, it must obey the economic laws inherent in our system. One of these laws states business must economically exploit labor in order to continue to exist as an entity. This is the economic basis for the split between management/ownership and the workers in the health care industry.

Hospitals are a health care business. They have the means to make people well and medically healthy. This is its product, just as Kodak makes cameras as its product. Like all businesses competing in this system, the technology of the industry is advancing greatly. For example, most intensive care units have computerized patient monitoring of the patients' systems, even to taking pressure of fluid in the brain. This trend comes directly out of the need for constantly increasing profit.

Another result is that health care in the U.S. today is disease-oriented rather than prevention-oriented. There is minimal emphasis on keeping people healthy. In understanding that the main goal of the industry is profit, we can see why. Healthy people are not profitable. This affects the consumer directly, in not receiving preventive care, not to mention skyrocketing medical bills. But what does this mean to health care workers? First, it means low wages. Money must come from somewhere, and low wages are a direct result of as much money as possible being skimmed from the workers' product as possible. Health workers are the backbone of the industry, they make the product (that is, provide the service), but are clearly not respected for this or paid as fits their contribution.

Health Care Industry

The University of Minnesota Hospital (LMH), and Hennepin County Medical Center (HCMC) are state run hospitals. In spite of being 'public', we can see that the drive for profit rules here also. They must, as any hospital, expand and advance their technology in order to maintain political and social dominance in relation to other hospitals. LMH for example, is known as a center for research and its work in transplants.

Health Care Workers

The other aspect is the health care workers - the RN's, LPN's, technicians, and service workers at the LMH and HCMC. The most noticeable thing in our position relative to the industry, especially at LMH and HCMC, is our lack of an independent form of organization - a union of our own. We are forced to use the management's organizations, like the Nurses Council at LMH or Meet and Confer at HCMC. These forms have not resulted in either higher wages or better working conditions. At the same time, health care workers currently cannot be independent of the civil service work rules which determine policies such as overtime pay. Nevertheless, independent groups of nurses are now talking about changes they want to see in these policies.

Once having defined the two sides, we must be clear on the areas, or classifications of struggle and connection between the two sides. There are two key areas: economic and ideological.

Economic

We have looked at the all-powerful drive for profit which rules the health care industry, and its results in low wages. There are other injustices that are part and parcel with low wages. Most places are so shortstaffed that nurses often work through breaks and lunch to get their work done. Nurses at LMH don't get paid for the first hour of overtime, it is their 'duty'. The problem is heightening now due to seemingly ever-increasing inflation. Like most working people around the country, nurses' 'real' wages (corrected for inflation) are declining in relation to profit or prices.

Shortstaffing is worth looking at more closely, as it is inevitably tied to the advancing technology. Money must be continually poured into more advanced equipment coupled with the high cost of research, which is ongoing; and so, against this way of doing things, budgeting doesn't include hiring enough workers to keep pace with the efficient output of the advanced equipment. An example of advanced technology is the CAT Scanner, a machine for X-raying soft tissue. UMH has two, and is buying a third because the others are outdated. These very expensive machines replace several specialized people and tests. (To be clear, we are not condemning technology as such. Much of this equipment is an incredible advance to society and will save many lives. But the key point is who it serves. Technology is not the enemy, rather it's the system that uses it for increased profit vs. making rational decisions based on what we need).

To recap, health care industry vs. labor, profit vs. economic exploitation, hospital management vs. nurses are forms of struggle now being actively played out. These forms of struggle can be characterized in the generality as: economic class struggle over the percentage of profit that will go to workers/nurses, on the one hand, and owners/management on the other hand.

Having looked at what is the basis of nurses' struggle, we can begin to analyze the process more closely, first looking concretely at what are the two aspects of the characterization.

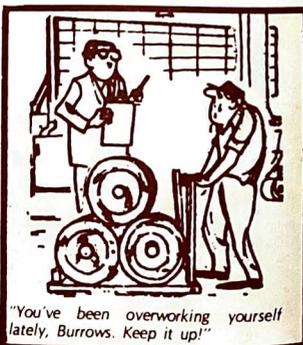
Ideological

Why do nurses work through their breaks? Ideology is a word for our deeply ingrained ways of thinking, based on our role in society. Nurses' role is one of service to people, very connected to being a woman's job. Nurses are taught to serve patients' needs above their own. For example, when a nurse calls in sick, other nurses in her station must be called to substitute. Knowing the situation, thinking about the patients, and fellow workers many nurses will give up personal plans to go in to work with no notice.

The trouble with this very commendable dedication is that it is used to the fullest by management. What they get out of the deal is to get by with the fewest people, and a flexible work force to keep each station minimally staffed with no hassle to themselves. Nurses take an institutional problem like shortstaffing upon themselves personally, and feel guilty if the work isn't done.

'Professionalism' is another control on nurses. It brings an image of RN's controlling their work, using their leadership skills to organize hospital work and help the patients in all aspects of their recovery. Of course, the reality is very different: very little control of their work, no time to relate to patients' whole well-being due to their responsibilities of running for medications, bedpans, and getting instructions from doctors. But this is still a force within nurses, and again, it is used by the management to serve its economic interest: for example, 'professionals don't unionize'.

We can see the difference between the ideals of professionalism and the real conditions in the hospital. But in order to do something about it, we must be organized. Nurses, as well as other health workers, need to build organization independent of the organizational structure of management. Otherwise, we shall stay on the subordinate side. We need a union, which is a form of political power, to change our conditions.



THE POLITICS OF DAYCARE

by Judy Rasmussen, R.N.

This is the first in a three-part series on Child-care and the problems that we as workers face when we have to deal with childcare as well as work itself.

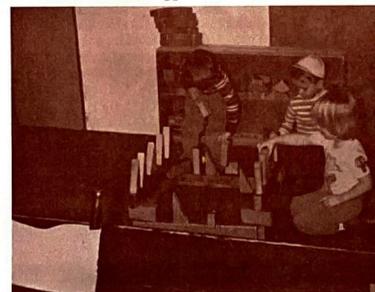
In the past fifteen years, more and more women have gone to work outside of the home. Many, because they wanted to, but most do so because they economically have to. Many families feel the father should not bear the sole responsibility for supporting the family. Also, there is the growing attitude that a woman's skills should not be left to rust. As more and more women are forced economically to seek employment, the lack of decent daycare is becoming a severe crisis. Most families provide their own daycare through babysitters, friends, neighbors & relatives.

Low cost and public daycare would be a means for families to liberate themselves from having to seek childcare over and over as is often the case if family or friends can't take care of the children. Group childcare has the potential of providing an environment in which children will develop socially and responsibly. Some women and men have suggested and in some places have carried out the demand for daycare services from institutions in which they work or study to provide childcare.

Historically, organized daycare in this country has existed to meet the needs of the capitalist class rather than the needs of the families that use them. Full daycare programs have been provided by the government during periods of economic stress.

During World War II, women were needed in the defense plants. At that time many government sponsored daycare centers were provided. The post war period brought on economic recession. Women were the first to be fired or laid off, and nearly all the daycare centers were phased out.

These programs were clearly created to service corporations which needed woman-power, not as educational or social opportunities for children.



These quick closings of daycare facilities during the post war period indicated that the centers were not organized for the benefit of women and children but rather to facilitate the carrying out of needed war production.

The 60's and the Vietnam War brought another increase in the economy and more women entered the workforce. Women and men demanded more daycare

programs. In the past few years there had been interest by state and federal government to develop daycare facilities for low income and welfare families. In response to the demands, Project Head Start was begun in 1967. The main reason for the new drive for daycare is the goal of lowering welfare costs by channeling welfare recipients into low paying jobs. This official drive for daycare has been motivated once again by needs of the economy rather than concerns of families.

Since the end of the Vietnam War again we have witnessed cutbacks. The economy slowed down, less

people were needed to work. The first to be let go were women. As the economy slowed its pace, funds dried up causing cutbacks to those who needed low cost or free daycare.

Why Daycare has not Developed in the U.S.

In this country there is a traditional ideology that young children and their mothers belong in the home. This is one reason for the failure of daycare programs to develop. Today, there is still a strong bias against the concept that daycare is potentially good for children and their mothers and fathers. The women have to work and as a result have to put their children in daycare are conditions considered necessary evils of our society.

Traditionally, women are expected to accept work at low wages and without job security. Thus, women are considered a reserve or marginal labor force when profits are dependent on extra low wages or when men go to war.

Daycare is one handle that is used to keep women from fighting against their low wages and layoffs. As times get economically harder, women are less and less able to remain at home. When funds aren't available women and children are the first to suffer.

Currently, good daycare is for a few and for profit, not for us who need it the most. Those that have power and control take the money made by the working people, turn around and use it for themselves. They lobby and write grants for childcare for themselves, not for those of us who work all hours of the day and night.

Next Issue: A look at individuals and how they cope with childcare problems.

CAFFEINE

(cont. from p. 1)



CAFFEINISM CASE REPORT

A 27-year-old nurse visited an outpatient medical clinic complaining of lightheadedness, tremulousness, breathlessness, headache and irregular heartbeat which occurred sporadically two or three times a day. The symptoms had developed gradually over a three-week period. She denied precipitating stress. Physical examination and a battery of lab tests were within normal limits. An electrocardiogram (EKG) showed heart-beat irregularities called premature ventricular contractions (PVCs).

She was advised that if her PVCs failed to disappear, she should take quinidine sulfate; she was instructed in its use. She was then referred to the psychiatric outpatient department with a diagnosis of "anxiety reaction."

The patient was skeptical of the diagnosis, despite continuation of her symptoms, and about 10 days later, she convincingly correlated her condition to coffee consumption. In retrospect, she traced the onset of her problems to the purchase of a drip coffeepot. Because drip coffee tasted "so much better," she began drinking 10 to 12 cups of strong, black coffee a day, a caffeine consumption of more than 1000 mg.

Thirty-six hours after she eliminated coffee, all her symptoms disappeared, including her PVCs. She complained of fatigue for one week, but then began noting that she felt "truly awake in the morning for the first time in years."

She tried large doses of coffee twice after periods of abstinence and her anxiety symptoms and PVCs returned. Proud of her diagnostic skills, she vowed to refrain from excessive use of coffee or tea in the future. A two-year follow-up showed no recurrence of symptoms.

—adapted from John F. Greden, M.D., "Anxiety or Caffeinism: A Diagnostic Dilemma," *Am. Journ. of Psychiatry*, 131(10), pp. 1089-1092, Oct. 1974.

Clinicians should routinely inquire into caffeine intake, not only in cases of anxiety, but also in heart disease, ulcer, and high blood pressure, and whenever increased frequency of urination, irregular heartbeats, headache, insomnia or heart palpitations are reported as symptoms. If you have one of these symptoms or conditions and use caffeine, by all means bring it to your health worker's attention.

Various researchers^{1,2} have used values ranging from 200 milligrams (mg) to 750 mg of caffeine per day as a presumed "danger point," above which one is assumed to be at high risk of caffeineism. Most surveys of U.S. coffee drinkers agree that about 25 percent consume at least five cups of coffee per day, a caffeine dose of 500-600 mg.

One imaginative study⁴ demonstrated that even people who are moderate coffee drinkers may be caffeine addicts. Wes-

leyan University researcher Lynn Kozlowski controlled the caffeine content of the coffee consumed by a group of volunteers by mixing regular coffee and decaffeinated in various proportions. Although the subjects could not distinguish regular coffee from "half-caf" by taste, they consistently drank more coffee when their brew contained less caffeine.

Kozlowski concluded that in moderation, caffeine is a useful, safe stimulant for most people and that a half-caffeine brew might be a useful self-care tool for those trying to reduce their consumption.

Caffeine Withdrawal Symptoms

Many moderate and heavy coffee drinkers experience withdrawal symptoms if they go without caffeine for 24 hours. For most people, the first symptom of caffeine deprivation is a headache that

(CAFFEINE cont. of p. 7)

TOXIC WASTES: Greatest Health Hazard Facing World Today

by Linda Eastman, RN, Amy Lange, & Jack Smith

Toxic chemicals and toxic wastes have been acknowledged as one of the greatest health and environmental problems facing the world today. There are increasing cases of poisoned drinking water, of toxic wastes working themselves up the food chain, cases of forests and farms deteriorating because of chemicals leaching in the soil, increasing numbers of rivers loaded with toxic sludge and innumerable health hazards accompanying all these incidents.

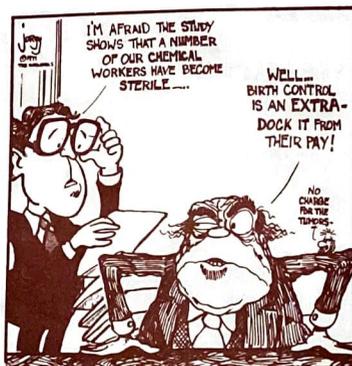
People are suffering from cancer, liver, nerve and muscle damage, and scientific data shows high miscarriage and birth defect rates in chemical laden areas. And while these problems are now gaining media attention, the information passed out is haphazard and sporadic. It is increasingly difficult to understand the government's role and responsibility; legislation is piecemeal and tedious, and somehow industry rarely ends up with the financial obligation to clean up its own mess. But the reasons that the toxic chemical problem is so devastating and immense is understandable in an economic and historical sense. It is a function of our so called "free-market", capitalist system, of the United States emphasis on technology and expansion, and our system of lawmaking.

The U.S. is very reliant on chemicals and chemical industry's contribution to the economy. There are 50,000 chemicals now in use and 700-2,000 new chemical substances being introduced each year. Chemicals are used in virtually all consumer products from fertilizers, paints and solvents to cosmetics, clothing and food packaging. While the production process creates hazards for workers, waste disposal threatens everyone. There are at least 51,000 active and abandoned dumps in the country, 2,000 of which the E.P.A. believes could create health and environmental dangers in the next three years. 60%-90% of the 40-50 million pounds of hazardous wastes generated yearly are improperly disposed of. Many chemicals like dioxin and P.C.B.s are virtually indestructible and are dangerous in quantities of one part per million or less! Even those toxic wastes "properly" disposed of can cause problems in the future because present technology does not insure long-term safety.

The problem starts with the economic system and the means by which new products enter the market. There are few checks on the system and little incentive for industry to be socially or environmentally responsible. The role of industry is to boost the economy by producing consumable products, employing workers and by reinvesting capital in the economy. Concern for the environment is not technically part of the system, and up till now has been largely ignored. Much of what industry has produced through the use of chemicals has been helpful in the short run but is proving to be dangerous over a long period of time. Industry has not shown restraint in the hazards it produced as long as a profit was yielded. Since industry was not legally responsible for long-term health and environmental problems they refrained from outlaying money to do research, compile data or compensate for damage.

Role Of Government

The government up until 1976 had no legislation regulating toxic substances. It is part of the system that the laws always come after damage has occurred, after problems become strikingly visible. The government is slow to act because of the mechanics of the legal system but also because it has a stake in maintaining economic growth (interpreted as meaning protecting corporate interests). Though the government is supposed to protect the public it sees this obligation in economic terms rather than through issues of health and safety.



The Inkwork/cpf

The government now has 20 federal laws and administering agencies (such as the Environment Protection Agency, the Consumer Protection Agency, and the Occupation, Safety and Health Agency) dealing with toxic chemicals, consumer safety and environmental issues. All suffer from problems of low budgeting, overregulation, fragmentation and incredible industry backlash. Agencies must compile complex, detailed data in order to lobby for change. Most existing laws barely touch on the problem, working site by site, infraction by infraction, and many are vaguely written and their interpretation gets fought in the courts.

Two of the most significant laws are the Toxic Substances Control Act of 1976 and "Superfund" just passed by congress. The Toxic Substances Control Act gave the E.P.A. mandate to ban manufacture, distribution and use of P.C.B.s. Under T.S.C.A. there must be pre-market testing of chemicals for health and environmental effects. The E.P.A. has been slow to act and has granted delays and exemptions to industry under political pressure. If properly enforced the T.S.C.A. could be a powerful tool in controlling the influx of chemicals into the environment.

This December, Congress passed a version of Carter's hazardous waste superfund bill. The allocation is \$1.6 billion for the next five years. \$1.38 billion will come from taxes on chemical industry and the rest from the government. (The government will sue industry after clean-up to regain costs.) The bill gives the federal govt. the authority to clean up, immediately, any chemical leaked into the environment. The superfund money will go to clean up the 100 worst dump sites and chemical spills in the nation, each state bidding for money, (with at least one site in each state).

The limitations with superfund are mainly financial. There is money only for a fraction of the sites and the bill is only for five years, chances are Reagan will not re-allocate the funds and the toxic chemical problem will be far from solved within five years.

There are two agencies in Minnesota working on the toxic chemical issue: the Minnesota Pollution Control Agency and the Minnesota Waste Management Board. M.P.C.A. is responsible for determining Minnesota's problem areas and submitting proposals to the E.P.A. The M.W.M.B. is seeking sites to safely store the 128,000 tons of hazardous waste generated annually in Minnesota.

Industry Backlash

Industry resists regulations and responsibility and is in a powerful position to do so. Industry has always waved the threat of unemployment in the face of government regulation and continues to pump massive funds into campaigns against environmental protection. If liability was proven after the fact, industry would be socked with huge financial clean-up projects. They have a strong monetary incentive to maintain the system. This is why it has proven profitable for industry to pay organized crime to illegally dump wastes. The hazardous waste problem is intensified because many

(TOXIC WASTES cont. on p. 6)

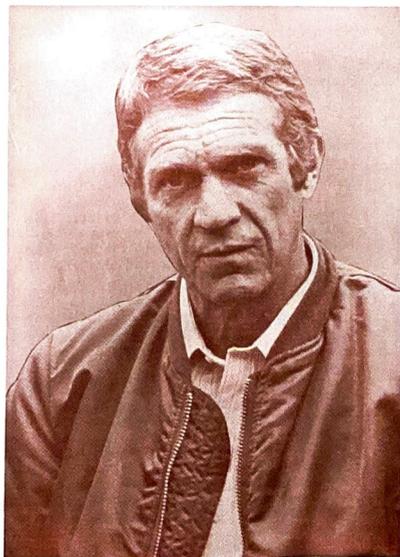
Cancer (cont. from p.1)

phageal tumors that had been surgically removed, almost all had live fungus growing in them. With the findings, the Chinese Health Service is acting to resolve these problems. In their anti-cancer campaign, they try to educate this county about prevention. They tell them to drink only purified water and not to eat moldy bread. The people are shown ways to prevent mold from growing. A substance was added to the wheat seeds which produced 40% less nitrates in the soil. These changes among others are an attempt to decrease the cancer rate but results won't be known for some time. It takes years for the cancer to develop, to be detected and to change a peoples' way of life is complicated and difficult.

These Chinese scientists do not understand the causes of cancer any better than we do but they believe they know enough to try to prevent it. In the U.S. with all of the sophisticated technology that has been developed in the last 30 years, we have improved the 5 year survival rate by only 1%. Even the death rate from cancer has risen 12% over the past 10 years. The Department of Health Education and Welfare (HEW) states in its own publications that 70-90% of all cancers are environmentally caused. Despite these facts, research money is not being channeled into the area of prevention. In 1978 only 210 out of 25,500 government grants were given out for the study of environmentally induced cancers. The American Cancer Society is the richest private charity in the world with a projected budget this year of \$150 million. The National Institute of Health provided \$12.5 billion for cancer research. All of this money is not helping to "cure" cancer so why is so much money channelled into finding "new cures" such as new chemotherapy drugs, sophisticated radiology equipment etc, which are proven to be ineffectual in decreasing the cancer rate?

The key factor here is that there is more profit in finding a cure for cancer than in prevention of the disease. The institutions that distribute research funds, National Institute of Health, National Cancer Institute, and the American Cancer Society have a material, social basis. There is a strong interlocking of business practices and private interests to yield higher profits with the decisions made by these organizations. The boards of directors of these institutions often include presidents, vice presidents etc, from chemical and drug companies and laboratories; investment bankers and food industry executives, all of which are also producers of these carcinogens. These people in power are not about to support action or legislation to protect society from the effects of their products. Especially that which would interfere with their business interests.

(CANCER cont. on p. 6)



STEVE MCQUEEN'S LAST FIGHT

Re-written from New Age January 1981.

After a year of persistent coughing and chest discomfort, Steve McQueen was diagnosed as having mesothelioma. This is a rare cancer of the pleura surrounding the lungs. It is associated with exposure to asbestos which McQueen worked with as a seaman some 30 years prior to the disease.

Doctors at the prestigious Cedars Sinai Hospital gave him six months to live and said there was no hope for a cure, but advised chemotherapy anyway. When McQueen declined, they advised him to make the best of his remaining days. He went on a drinking binge till several of his fans convinced him to try alternative therapy.

In July, 1980, he flew to Mexico to begin a non-toxic healing alternative. He was in terrible shape. He could barely walk alone and weighed just over 100 pounds. His stomach was bloated with tumors. One lung was completely engulfed by the primary tumor, and it was spreading to the second lung.

The therapy he chose consisted of a high fiber natural diet, megavitamins, enzymes, fruit juices and counseling. It is based on the theory that with the proper support the body's own immune system can conquer cancer. In Steve McQueen's case, it seemed to be working. His tumors shrank and his appetite improved. On October 6 he stated, "Mexico is showing this world this new way of fighting cancer through non-specific metabolic therapy. Congratulations and thank you for helping to save my life."

On November 7 McQueen had surgery to remove the abdominal tumors which had stopped growing. The doctors reported the tumors were unattached and were lifted out. He began making a normal post-op recovery; but 14 hours later, McQueen died of a coronary embolism (a blood clot in the heart, a potential effect of going under general anesthesia).

The point of Steve McQueen's experience is not that such a therapy is some miracle cure. But rather that there are some alternative approaches which merit investigation. McQueen was the first well-known cancer victim to take such a stand; that the human right of health demands that all methods which show results against cancer deserve to be scientifically tested. Steve McQueen bet his life on it and almost won.

THE MARKET ECONOMY

Marge Piercy

Suppose some peddler offered
You can have a color TV
but your baby will be
born with a crooked spine;
You can have polyvinyl cups
and wash and wear
suits but it will cost
you your left lung
rotted with cancer; suppose
somebody offered you
a frozen precooked dinner
every night for ten years
but at the end
your colon dies
and then you do,
slowly and with much pain.
You get a house in the suburbs
but you work in a new plastics
factory and die at fifty-two
when your kidneys turn off.

But where else will you
work? Where else can
you rent but Saog City?
The only houses for sale
are under the yellow sky.
You've been out of work for
a year and they're hiring
at the plastics factory.
Don't read the fine
print, there isn't any.

of the industries are international and regulation will have to be an international effort or the U.S. runs the risk of losing important corporations, especially to developing nations.

There are many instances of industry repressing research and the dissemination of findings of chemical dangers. The asbestos industry knew for 50 years that asbestos was a carcinogen but they silenced the information. In 1952 Wilhelm Heuper, head of the Environmental Cancer Section of the National Cancer Institute began speaking on the dangers of cancer to chromate miners. The chromate industry put pressure on the government to silence Heuper. The Surgeon General forbade Heuper to share any evidence with state Departments of Health and forced him to stop his research.

There are no easy solutions, mainly a lot of questions to ask. How can we best insure that toxic wastes being generated are safely disposed of? How can we get industry to see its stake in protecting the environment? How can the government play a firmer role in dealing with health and safety issues? We need stricter regulations on waste disposal, more comprehensive legislation, we need more funding for regulatory agencies and safer waste management technology. We also need to insure that we receive information about the problems. These are efforts to press for immediately. In the long run we need educated consumers weighing the short term benefits of products against future risks. Our most powerful action would be to stop supporting products which are hazardous to our health and environment. Many people have become politicized overnight when confronted personally with health problems from toxic wastes. Love Canal is but one example of how people when organized together, can force government and industry to be accountable to them. A unified and indignant population has real political power if it uses its voice.

Incidents Of Toxic Waste Hazards

- * The M.P.C.A. is investigating 3 herbicide spills that took place in 1979 and 1980 around the Detroit Lakes. There is chemical contamination of wells. The health dangers are still unverified.
- * A well in Spring Valley was discovered to be contaminated, ethylene dichloride was detected. The Advance Transformer Co. allegedly dumped hazardous chemicals in the disposal system. Also in Spring Valley it is suspected that toxic wastes from a landfill have leached into the river. There have been cases reported of children playing by the landfill who have lost their hair, there is a suspected link to the toxic wastes. The landfill contains barrels of an industrial solvent called Dowlene which causes nerve and liver damage.
- * The E.P.A. sued the Reilly company for causing health and environmental damage by dumping toxic chemicals. There is an 80 acre site in St. Louis Park, formerly owned by The Republic Creosote Co., then taken over by Reilly, at which wastes have been leaking into ground water used by the city. The suit presses for Reilly to pay clean-up costs and prevent further spread of the wastes.



Cancer (cont. from p. 5)

As in Lin Xian, China the rising cancer rates in the U.S. are likely the result of multiple factors. These are factors such as the changing dietary patterns.

Since World War II, the consumption of soft drinks has gone up 80%; pastries up 70%; potato chips 85%. Meanwhile the consumption of dairy products has decreased 21%; vegetables down 23%; fruits down 25%. The average person consumes a diet of 60-70% fat and refined sugar. The increased consumption of fat and refined carbohydrates is closely associated with cancer of the colon and breast.

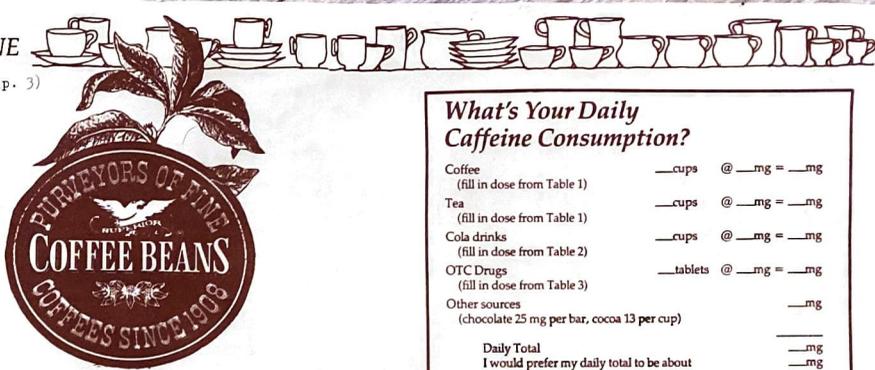
Other factors include pollution of the environment from toxic wastes and industrial by-products and carcinogenic chemicals in our food. Cancer is rooted in our way of life. Thus cancer is a cultural problem. It is rooted in the way our society feeds, clothes, and houses itself, thus it is a social problem. Therefore, it must be attacked in an all sided approach; not merely a medical approach.

We need not wait to begin reorienting our approach to cancer. There are individual and collective actions people can take to begin "cultural detoxification." On an individual level, good nutrition and exercise are critical. There are many approaches to both of these which result in better health in the short run and decrease the risk of cancer and other chronic diseases in the long run.

Research into cancer prevention is also urgently needed. This can be initiated on an individual level by students and researchers. On a collective level, people are invited to participate in Elizabeth Blackwell's Nutritional Research Project. And on a political level people can demand that the American Cancer Society and the government begin to fund prevention research. Another area for organized action is the environmental movement. This includes organizing to prevent chemical and radiation hazards at the workplace.

An Afterword:

This article is by no means intended to demean the enormous efforts of nurses, doctors & technicians working in oncology. Their efforts have helped to alleviate the immense suffering of cancer patients and contributed to the saving of lives. But it is precisely because we have helplessly watched so much suffering that we write this. It is because so much of the tragedy of cancer can be prevented that makes the billion dollar hunt for the elusive cure such a sharp contradiction.



continued may develop as early as 18 hours after the last caffeine dose. It typically begins with a feeling of cerebral fullness and progresses to a diffuse, painful throbbing. In many cases, these headaches occur on weekend mornings because many coffee drinkers cut their consumption considerably on days off. Caffeine withdrawal headaches are frequently made worse by exercise. Of course, they are relieved by taking more caffeine: a cup of coffee or tea or a caffeine-containing pain remedy, such as Anacin, Vanquish, Excedrin or others.

Caffeine as a Chemical

Caffeine is known chemically as 1,3,7-trimethylxanthine. The lethal caffeine dose for a healthy adult man is approximately 10 grams, the equivalent of 80 to 100 cups of coffee. Toxic effects, however, appear at much lower doses and the body breaks down caffeine and excretes it rapidly; therefore, deaths from caffeine overdoses are virtually unknown.

Caffeine belongs to a chemical family called the xanthines. Closely related compounds include theobromine, found in chocolate and cocoa, and theophylline, found in tea. The xanthines stimulate the CNS and the heart, increase urine production and relax smooth muscle tissue. Caffeine is a particularly potent CNS and cardiac stimulant—two to three cups of coffee can increase blood pressure by as much as 14 percent.

Theophylline is particularly effective in relaxing the bronchioles of the lungs, and is often used to treat asthma. This may explain why tea has traditionally been used as a folk remedy for asthma and upper respiratory tract infections.

At moderate levels of caffeine consumption—two to three cups of coffee a day—many individuals report improved work effectiveness. Above this level, however, many begin to experience some of the symptoms of caffeineism.

People at Special Risk from Caffeine

- A pregnant woman who drinks coffee exposes her developing fetus to the same concentration of caffeine as that in her own blood. The caffeine equivalent of five to six cups of coffee per day has been shown to increase the risk of birth defects in laboratory animals.³ Whether the same effect occurs in humans is not yet clear. Caffeine also apparently produces complications of pregnancy among heavy users. One recent study⁴ showed that among pregnant women who exceeded 600 mg of caffeine per day, only one in 16 had a normal delivery. Fifteen out of 16 pregnancies among these heavy coffee drinkers ended in spontaneous abortion, stillbirth or premature birth.
- An Ohio State researcher⁵ recently found that many women with fibrocystic breast disease—benign breast lumps—could shrink or eliminate their lumps by eliminating caffeine and other xanthines from their diets. The breast lumps of 65 percent of the women studied disappeared entirely within two to six months after quitting coffee.
- Some studies⁶ have suggested that heavy coffee drinkers are at increased risk for developing heart disease. Other studies

have shown no correlation between caffeine and heart problems. Until this controversy is settled, however, it would seem wise for people with existing heart disease, a strong family history of heart disease or high blood pressure, or other existing risk factors for heart disease to confine their coffee drinking to low levels, a cup or two a day.

• Children and adolescents who consume large quantities of colas or other caffeine-containing drinks may experience irritability, irregular heartbeat and insomnia. Caffeine's effects depend on both dose and body weight. Thus, a young child who drinks one Coke or Dr. Pepper may experience the same caffeine effect as an adult who drinks four cups of coffee.

• Caffeine increases muscle tension—the larger the dose, the greater the tension. Biofeedback practitioners often ask their clients not to drink tea or coffee before a session because caffeine can interfere with the development of relaxation skills. People who have problems with chronic muscle tension might do well to keep their caffeine intake to a minimum.

• Because caffeine's effects mimic anxiety reactions, people with emotional problems—high anxiety levels or those going through difficult life transitions may wish to reduce their caffeine intake.

• Caffeine increases the secretion of stomach acid; thus, people with ulcers or other gastrointestinal problems are usually advised to reduce or eliminate it.

Examining Your Own Caffeine Intake

We suggest you consider first, the health risk factors mentioned above, then second, the ways (s) you use caffeine as a tool in your life. If one of your goals is to concentrate more effectively on your work, you may find it a useful tool. On the other hand, many people who decide to experiment with their coffee or tea drinking find that they experience an improvement in the quality of their lives when they cut back on caffeine or eliminate it altogether. Here are some things to keep in mind when looking at the role caffeine plays in your life.

• People tend to substantially underestimate their caffeine intake. Keeping a log is a good way to learn how much you really consume (see sidebar: "What's Your Daily Caffeine Consumption?")

• People's reactions to caffeine are extremely variable. Some can't touch the stuff. Others can ingest substantial amounts without undesired results. Listen to other people's opinions, but remember, your own caffeine pattern may be different from anyone else's. Also, an individual's response to caffeine may change over time.

- If you decide to cut down, consider coffee substitutes other than beverages. Many people say coffee "gets them going" in the morning. But a short run, 15 minutes of yoga or a brief meditation session may have the same effect.
- If you decide to eliminate caffeine altogether, consider tapering off. If you stop "cold turkey," you may experience a headache or morning drowsiness for as long as a week—depending on how heavy a coffee drinker you were.
- If you find a hot morning drink a satis-

What's Your Daily Caffeine Consumption?

Coffee (fill in dose from Table 1)	_____ cups	@ _____ mg = _____ mg
Tea (fill in dose from Table 1)	_____ cups	@ _____ mg = _____ mg
Cola drinks (fill in dose from Table 2)	_____ cups	@ _____ mg = _____ mg
OTC Drugs (fill in dose from Table 3)	_____ tablets	@ _____ mg = _____ mg
Other sources (chocolate 25 mg per bar, cocoa 13 per cup)		_____ mg
Daily Total		_____ mg
I would prefer my daily total to be about		_____ mg

Table One Caffeine content of coffee, tea, and cocoa (milligrams per serving—average values)	Table 3 Caffeine Content of Over-the-Counter Drugs (per tablet)
Coffee, instant 66	Anacin 32mg
Coffee, percolated 110	Aqua-ban 100mg
Coffee, dripulated 146	Bivartin 200mg
Teabag—5 minute brew 46	Caffeined 200mg
Teabag—1 minute brew 28	Dnstan 16mg
Loose tea—5 minute brew 40	Empirin 32mg
Cocoa 13	Excedrin 64mg
	Midol 32mg
	No Doz 100mg
	Pre-menstru Forte 100mg
	Vanquish 33mg
Table Two Caffeine content of cola beverages (milligrams per 12-ounce can)	Source: M.L. Bunker and M. McWilliams, "Caffeine Content of Common Beverages," Journal of the American Dietetic Association, Vol. 74, pp. 28-32, January 1979
Coca Cola 65	
Dr. Pepper 61	
Mountain Dew 55	
Diet Dr. Pepper 54	
TAB 49	
Peppi-Cola 43	
Diet RC 33	
Diet-Rite 32	

ting part of your wake-up routine, a switch from coffee to tea might be a good way to taper down. The average cup of tea contains less than half the caffeine of a cup of brewed coffee.

• It's easier for one member of a family to make a change in caffeine consumption if others in the household do likewise. You might ask your housemates for support in your efforts to cut back. One way to do this is to make all the coffee in your house half-caff.

• We encourage you to experiment with your caffeine intake. In doing so, you incur no obligation to make changes you find undesirable, but you may discover some ways to improve the quality of your life. Consider, perhaps, going for a week without coffee; see how it feels. One MSC contributor who did that recently decided afterwards to use caffeine only occasionally.

"I feel so much more in control of my life," she explained. "I feel much more even emotionally. Before I was always rushing. Now I feel I'm moving at my proper pace. It's so nice to wake up in the morning and not feel you need to drink something to get yourself going." □

Medical Self-Care Winter 1980

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STRIKE

"Anne Jones, 33, Breast cancer with metastases..."
"I worked overtime again..."
"I had to laugh when he first saw the baby..."
"I can't stay on nights..."
"NURSE! NURSE! I want a bed pan NOW!"...
"Why am I a nurse, anyway?"...

Nursing is under stress. The whole medical care system is under a lot of stress and it is changing. Nurses and other health care workers are playing a positive role in this process. But too often we go it alone, or in small groups, without the benefit of others experience and support.

"Changing the system" is a slow process. What's needed is an enzyme to speed it up. What's needed is a network of concerned people sharing their lessons and experiences with each other. This newspaper can be such an enzyme. It has catalyzed the process of understanding the health care system for the nurses involved in producing it. As it grows in circulation, in breadth of volunteer staff and in depth of analysis it will become a network of those who work in the hospitals, nursing homes and clinics.

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