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WOHRC NEWS
WOMEN'S OCCUPATIONAL HEALTH RESOURCE CENTER

WOHRC Studies ETO Effects on Hospital Workers

Two year project will see if ethylene oxide linked to blood diseases.

WOHRC staff is carrying out a two-year study to determine the effects of ethylene oxide on hospital workers. The study has received cooperation from the joint labor-management board of District 1199, National Union of Hospital and Health Care Workers Benefit Fund.

Commonly used as a disinfectant in hospitals throughout the U.S., ethylene oxide (ETO) has been linked with chromosome mutations, anemia, hemorrhaging, abnormal increases in lymph cells and decreases in red blood cells, and possibly leukemia.

More than 100,000 health care workers are exposed to the chemical each year.

The study, directed by WOHRC executive director Dr. Jeanne Stellman under a grant from the U.S. Environmental Protection Agency and general oncology support from the National Cancer Institute, will be completed in September 1982. WOHRC associates Theresa Schnorr and Jack Caravanos are active members of the research team.

The workers being studied are some 2,500 members of District 1199 which provides a comprehensive health care plan and thus has medical records available for scrutiny. Individual workers will be asked to volunteer to take part in the study.

The records are being examined for deaths, cancers and blood disorders occurring between January 1, 1973 and December 31, 1979. For each case studied there are two controls: union members of similar age, sex and race who have remained healthy. Researchers will then tour some of the hospitals involved to measure the use of ethylene oxide, and will interview workers to learn more about the history of their jobs and possible exposure. If a worker studied has died, coworkers will be interviewed.

Speakers at WOHRC science writers workshop included (from l.) Dr. I Bernard Weinstein, Columbia University Cancer Center and School of Public Health; Dr. Jessica Davis, North Shore Hospital; Dr. Rochelle Tyl, Chemical Industries Institute of Toxicology; and Dr. Steven Stellman, American Cancer Society. (Page 6.)

In addition, blood samples will be drawn from ETO-exposed and non-exposed volunteers in an effort to develop testing methods. This work is in collaboration with Dr. Allan Jeffrey of Columbia University.

Privacy for participants in the study is being ensured by storage of all data in locked cabinets and removal of all identifying marks. No subject names are being stored in the computer, and medical records are available only to study personnel.

If ETO or other hospital chemicals are found to pose an important risk in the development of blood diseases or cancer, hospitals will be urged to reduce workers' exposure. □

Canada Bans Formaldehyde Insulation

Canada's federal government has banned the use of urea-formaldehyde foam insulation in private homes. The government acted after a panel of experts reported that the material could release enough formaldehyde to cause serious respiratory problems.

Formaldehyde is known to cause eye, nose and throat irritations, cough, headache and dizziness, and has been shown to cause nasal cancer in laboratory animals (see *WOHRC News*, March/April 1981).

According to the Canadian panel, the foam insulation, which is injected into walls under pressure, is basically unstable, and in certain circumstances can deteriorate and release dangerous levels of formaldehyde fumes.

The ban, announced in April, makes permanent a temporary ban which had been imposed last December. It affects tens of thousands of Canadian homes, many of which had installed the material with the aid of grants from the Canadian Home Insulation Program.

Whether these homes are already imperiled by formaldehyde fumes is the subject of a study now being undertaken by the Canadian Department of Energy.

In the U.S., only the state of Massachusetts has forbidden the use of urea-formaldehyde foam insulation. A ban was recommended by the Consumer Product Safety Commission under the Carter Administration, but no federal action was ever taken. □

New Federal Radiation Regs May Discriminate

WOHRC objects in comments to government agency.

The proposed new federal regulations on exposure of workers to ionizing radiation do not take into account the special susceptibility of the male reproductive system to radiation damage, states WOHRC in comments on the regulations submitted to the U.S. Environmental Protection Agency.

WOHRC also objected to the EPA's proposed regulations on three other counts:

They are based on "different reasoning as they apply to protection of male and female reproductive functions."

They treat all women workers as if they were "permanently pregnant."

They do not "adequately provide for employee education so that men who wish to father children and women who wish to become pregnant can make informed decisions about their employment and radiation exposure."

In commenting on male susceptibility, WOHRC pointed out that "research in animals has shown that spermatogonia (the cells from which sperm mature) are particularly sensitive to genetic damage from ionizing radiation compared to female oocytes. Such genetic damage in spermatogonia has been shown in animal experiments to result in congenital malformations in liveborn animals and losses in pre-natal stages. The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) concluded in their 1977 report after a complete review of the literature . . . "the mutation rate in mature and maturing oocytes is lower than that of spermatogonia."

Extrapolating from animal experiments, WOHRC noted, UNSCEAR found that paternal irradiation could result in "from 2 to 10 congenitally malformed liveborn children per million conceptuses, per rad of paternal irradiation, with about five times this number of recognizable abortions and about 10 times the number of losses at the early embryonic stage. The corresponding risk from materal irradiation is likely to be small. . . ."

In its argument that EPA is inconsistent in its reasoning with regard to male and female workers, WOHRC noted that the agency "has not used sex-neutral reasoning in its concern for protecting the fetus. Where fetal effects are mediated maternally, EPA proposes in two alternatives . . . to limit exposure (either voluntarily or compulsarily) of fertile women. When adverse fetal effects are transmitted paternally there is not similar concern for special protection of the fetus."

Myth of permanent pregnancy

Commenting on what it called "the myth of permanent pregnancy," WOHRC noted that an examination of statistics on childbearing patterns of working women shows that "fewer than 2 percent of all blue-collar women who are employed outside the home will bear children after the age of thirty . . . even when we take into account an 'unexpected' childbearing rate two and one-half times greater than that reported by the National Center for Health Statistics."

The Center's statistics show that 80 percent of all legitimate children in families of three or fewer children are planned, WOHRC noted, adding that families with this number of children "represent the vast majority of working-class families with employed mothers."

Urging that the regulations be rewritten to ensure adequate employee education about risks for both men and women, WOHRC advocated that "workers who wish to parent children should have the option of removing themselves from radiation exposure prior to conception, and for females, during pregnancy. Seniority and pay retention should apply during these job transfers."

Comments on the proposed regulations by CRROW (The Coalition for the Reproductive Rights of Workers) of which WOHRC is a member, were similar, with particular emphasis on the criticism that the guidelines "will sanction exclusion of women workers from the workplace."

The EPA draft regulations published in January recommend that "exposure of the unborn should be restricted more than that of workers," and propose four alternatives to achieve this: A) Women are encouraged to voluntarily keep total dose to any unborn less than 0.5 rem during any known or suspected pregnancy. B) Women able to bear children should voluntarily avoid job situations involving whole-body dose rates greater than 0.2 rem per month and should keep total dose to the unborn less than 0.5 rem during pregnancy. C) Women able to bear children should be excluded from job situations involving whole-body dose rates greater than 0.2 rem per month, with exposure during pregnancy limited to 0.5 rem. D) Whole body dose rates for both men and women workers should be limited to 0.5 rem during any six-month period.

Copies of the WOHRC comments are available at $1.50 each. □

New Cancer Information

A complete list of all known human and animal carcinogens is now available to the public for the first time.

A project of the Carcinogen Information Program at Washington University, the list is compiled from information released by the International Agency for Research on Cancer, the U.S. Environmental Protection Agency and the U.S. Occupational Safety and Health Administration.

Copies of the list are available free of charge. Send a long, self-addressed, stamped envelope to CIP Bulletin, Center for the Biology of Natural Systems, Campus Box 1126, Washington University, St. Louis, Mo. 63130. □

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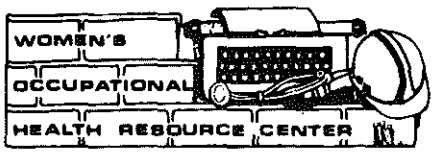

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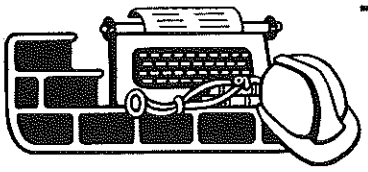


Fighting Indoor Air Pollution

How to ensure adequate ventilation

by Jack Caravanos

Indoor air pollution is a growing problem. Windows that can't be opened, fumes from the increasing number of office machines, and reduced ventilation for energy-saving purposes all contribute to it.

In addition to the machine emissions, the most common office air pollutants are cigarette smoke; chemicals such as those used in ink and glues; and contaminants from building cooking areas, loading docks and garages.

Unless an office is properly ventilated, pollutants can build up to levels that are unhealthy and possibly dangerous. Unfortunately, ventilation systems are not designed to remove pollutants, but simply to supply and circulate fresh air. With a limited number of contaminants, this may reduce the pollution level sufficiently—but only if the system is correctly designed and in good working order.

Before determining if the ventilation system in your office is adequate, let's talk about what the system is composed of.

The three basics

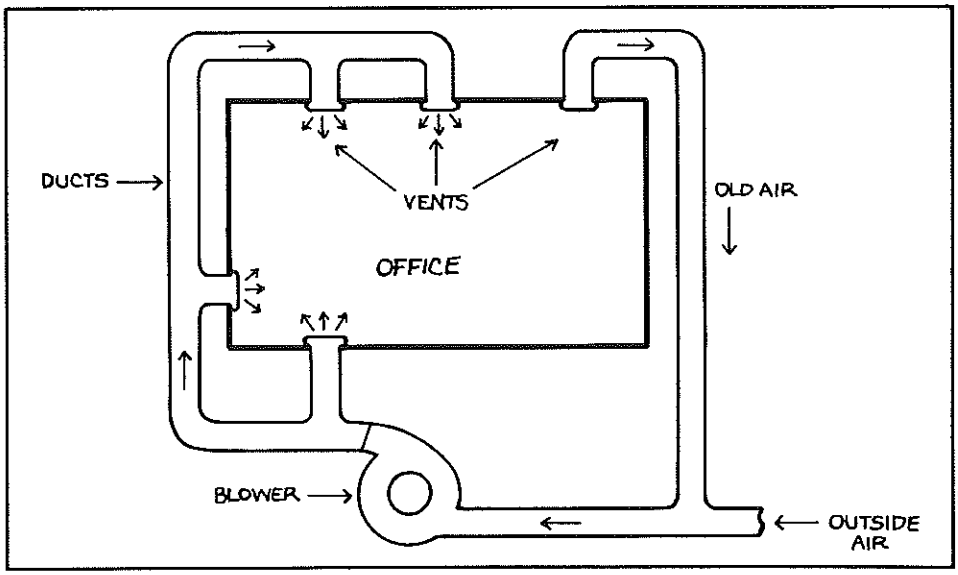
The three basics are the blower which moves the air, the duct work which delivers it to the room, and the vents which distribute it. The vents may be either supplying air or removing (exhausting) it.

No office receives 100 percent fresh, outside air. Usually, the fresh air is mixed with used office air and then redistributed. In some buildings, in fact, there is virtually no fresh air. The same air may be recirculated and breathed over and over again.

This is what to look for in evaluating your ventilation system:

1. Does your workplace have a ventilation system? ☐

This is not as odd a question as it may seem. Some buildings do not have ventilating systems. You can check to see if yours does by walking around and looking for vents and ducts. The pictures on this page give some examples of what to look for.



Nancy Hannans

This is the typical layout of an office ventilation system. The blower moves the air; the ducts deliver it to the room; and the vents supply or remove it.

2. Is the system on all the time? ☐

Often, the air circulation in a building will stop at 5 P.M. or on weekends even though people may regularly work late or night shifts. In many offices, large duplicating and printing jobs are done at night, and machines can produce a high volume of pollutants.

You can test whether the system is on by holding a tissue near the vent. If it moves, air is being circulated. Do this before and after five.

3. Is the system continuous or does it go on and off during the day? ☐

Some ventilation systems are on a time cycle. This means that the blower will turn on and off at regular intervals throughout the day. If your workplace is constantly generating air pollutants, such a system may not be giving you enough fresh air. The pollutants may accumulate while the system is off. Check the airflow regularly during the day, as you did above, to find out if you are getting fresh air continuously.

4. Does each room have a vent? ☐

Walk around and make a listing of the number of vents per room. Make sure you look on the walls and floors —and remember, no vents, no air.

5. Are the vents supplying or removing air? ☐

In each room there should always be a supply and an exhaust vent. This type of ventilation system is called "dilution ventilation." You can determine which vents are bringing air in and which are removing it by holding a tissue at the face of the vent. If air is moving past, you will be able to see it.

6. Are the vents for supply and exhaust right next to each other? ☐

When supply and exhaust vents are too close, the clean, fresh air gets sucked out of the room before it has adequately circulated. This is called "short-circuiting." It is the result of poor engineering design, and is difficult to repair.

7. Are the vents blocked in any way? ☐

Exhaust and supply vents will work only if the air can move freely around them. Blockage by walls, partitions, or even piled up boxes or files, will obstruct the air flow and reduce the ventilation efficiency.

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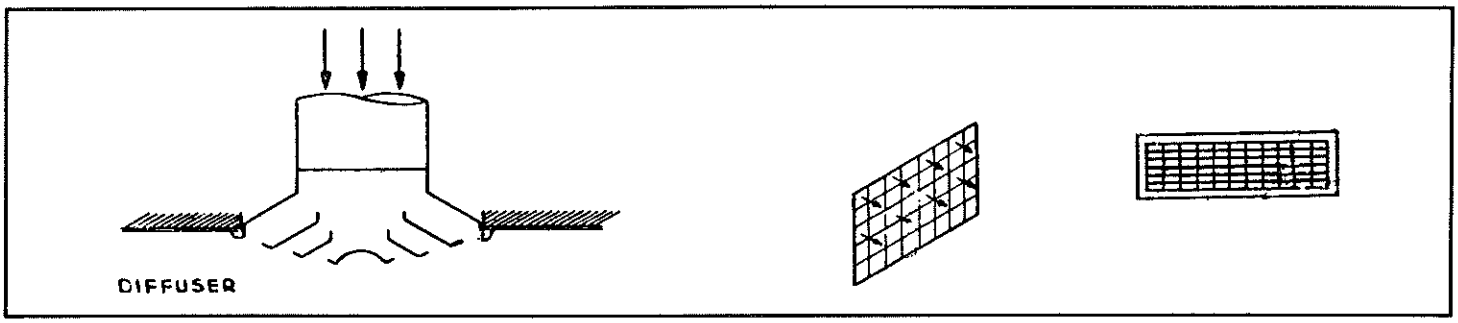


At center and right are the kind of vents you will see in your office, supplying and removing air. Drawing at left shows how air is blown through a diffusing vent.

8. Are there any "dead spaces" in your office? ☐

"Dead spaces" are those in which no air is replaced and in which pollutants will therefore build up. You can check to see if there are any in your office by lighting a match and noticing how the smoke moves. (Inexpensive smoke tubes are also available for this purpose.) Does it flow toward an exhaust vent or simply stay in one place? If it doesn't move, pollutants too will remain in the air; they are not being exhausted. The principal reason for dead spaces is poor placement of supply and exhaust vents.

9. Do office areas with printing and copying machines have adequate air supply and exhaust? ☐

You can find out by counting the vents, determining which way the air is moving and looking for dead spaces. For some machines, general ventilation is insufficient. You will need extra vents near the source of the fumes emitted.

10. Do you have control over your vent system? ☐

Some offices make it possible for workers to have control over the ventilation. You may be able to enter the fan room and to turn the blower or fan supplying the air up or down. Check with your building maintenance office to see if you can do this.

11. Is there a smoke detector in your ventilation system? ☐

There should be one. It is essential for early signaling of a fire. The detector should be located in the duct taking the air out of the office.

12. Is the temperature and humidity adequate? ☐

The importance of a comfortable temperature is obvious. But comfort also means proper humidity, or water in the air. When the office air is too dry your nasal passages dry up. You may get headaches and become more susceptible to colds, flus and other infections. When the air is too humid you also feel uncomfortable. Humidity makes a cold room feel colder and a hot room feel hotter.

Indoor air pollution measurements

In order to determine just how good or bad is the air in your office, you will have to test it. You may test for 1) the amount of air flow, 2) the amount of specific air pollutants or 3) the amount of heat and moisture. Some of these measurements are easily determined while others require specialized equipment.

For flow measurements you will need an airflow meter, also called a velometer. These are not very expensive and are usually able to measure both air coming into a room from the supply vent and air going out through the exhaust vent.

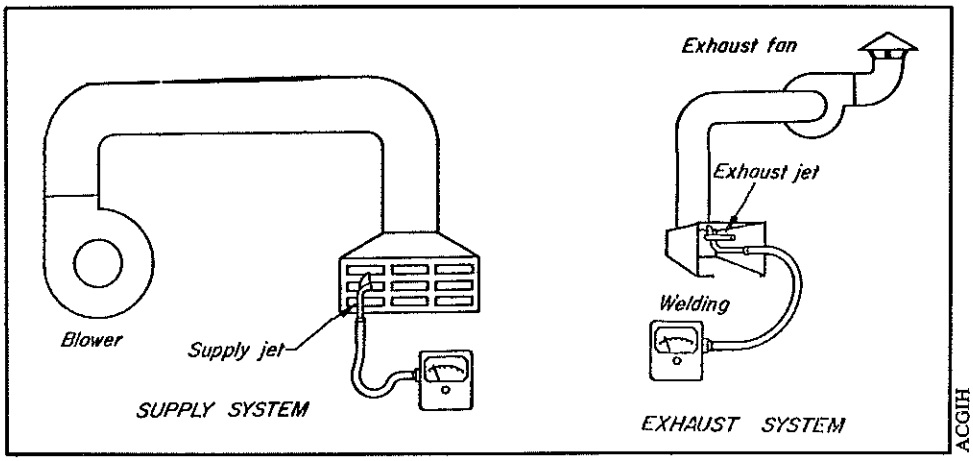
Smoke tubes, which are available in hardware stores, can also be used. But these will tell you only where the air is going and not how much.

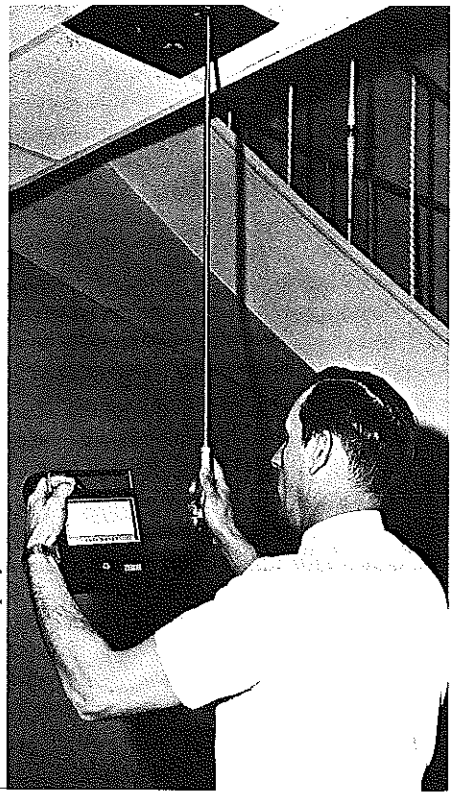
The readings from a velometer are in cubic feet per minute of air. Here is a listing of what the numbers should be:

Continuous exposure	Air velocity (ft. per min.)
Air conditioned space	50–75
Fixed work station, general ventilation or spot cooling:	
sitting	75–125
standing	100–200
Intermittent exposure, spot cooling or relief stations	
Light heat loads and activity	1000–2000
Moderate heat loads and activity	2000–3000
High heat loads and activity	3000–4000

Your local health department will usually set required minimum ventilation standards for office buildings, but these standards vary from state to state. Check with your state, county or city health department to see how your workplace measures up to the health

Drawings show how a velometer is attached to a supply and an exhaust vent.





Alnor Instument Company

This worker is using a velometer to measure the flow of air from a diffusing vent. The velometer has an extra-long probe to reach the ceiling.

code, and if there is a violation.

Measurement of specific air pollutants usually requires very special instruments which may be difficult to obtain. However, some pollutants you may want to look for, even without exact measurements, are the following:

Carbon monoxide—from cigarettes, gas heaters or any cooking or burning. This is a chemical asphyxiant which robs your body of needed oxygen and can cause headaches, nausea and dizziness.

Carbon dioxide—from insufficient air exchange. This can also cause headaches, nausea and dizziness.

Ozone—from any machine that produces an electrical spark, such as a duplicating machine. This can be a respiratory irritant.

Smoke and dusts—from powders, burning substances, cigarettes. These can cause eye and throat irritation, coughing and, if particularly heavy, lung disease.

Microbes (bacteria, fungi and viruses)—from cooling water used in the ventilation system. These can cause colds, influenza and such infectious diseases as Legionnaires' Disease.

Oxides of nitrogen—from high temperature machines, hot plates, cooking gas. These can cause watery eyes and irritations of the respiratory system.

Miscellaneous chemicals—such as solvents from glues, paints and other office supplies, or chemicals used in duplicating machines, such as toners, dyers and developers.

Measurements for temperature and moisture are easily made. Temperature can be determined by any common thermometer, but be sure that checks are made on such places as exhaust vents, supply vents, halls and dead spaces.

Moisture can be measured by a hydrometer, with the readings in percent relative humidity. The higher the number, the more water is in the air and, usually, the more discomfort there will be. But, as noted above, too low a moisture reading can also be bad.

For more information about measuring ventilation in your workplace, write to the Women's Occupational Health Resource Center at the address on page 6.

Jack Caravanos is a WOHRC staff associate. Single copies of this article may be ordered from WOHRC at 25 cents apiece.

Ninety Percent of Office Workers in Survey Complain of Inadequate Ventilation and Stress

Ninty percent of office workers in a recent survey cited unsatisfactory air quality and ventilation as a problem in their offices.

The survey of 1300 workers was conducted by Working Women, the membership organization of the National Association of Office Workers, and released to coincide with National Secretaries Week, April 20–24.

Next to air quality, stress was the problem most frequently complained of in the survey. More than 76 percent described their working conditions as very stressful, with "lack of promotions or raises" given as the main reason. Two in five respondants cited monotony and 35.1 percent faulted lack of input into decision making.

In reporting on the level of air quality, a quarter of the workers cited irritating fumes, including those from cigarette smoke and photocopying machines. Some 49 percent reported inadequate lighting, and 33 percent said their offices were too noisy.

Working Women concluded the report by calling on employees themselves to "take the initiative to become aware of office health hazards, to share their concerns and to organize for solutions both in the workplace and in the development of public policy."

Copies of the report, *Health Hazards for Office Workers,* are available from Working Women Education Fund, 1224 Huron Road, Cleveland, Ohio 44115. The price is $4 for individuals and $8 for institutions. □

Lead Level Lowered

The U.S. Occupational Safety and Health Administration (OSHA) has announced a new, lower blood lead level at which a worker must be moved from one job to another with lesser exposure.

The level will be lowered from 70 micrograms of lead per 100 micrograms of blood to 60 per 100. Workers who have been removed will be allowed to return to their original jobs only when their blood shows 40 micrograms of lead to 100 micrograms of blood instead of the 50 now required.

The new rule, effective July 3, will apply to all lead industries except primary and secondary smelters. These are given a delay until June 1 to give the agency more time to consider evidence they have submitted in support of their request for a one-year delay in the effective date.

OSHA, under its new director, Assistant Secretary of Labor Thorne Auchter, had previously asked the Supreme Court to grant industry's appeal for a stay on the lead standard, and asked the Court to send the regulation back to the agency for reconsideration.

The standard, which now remains before the Court, sets a timetable under which the allowable lead blood level would eventually be reduced to 50 micrograms of lead per 100 micrograms of blood.

No decision is expected for some time. □

HAVE YOU RENEWED YOUR SUBSCRIPTION?

Writers Briefed on Reproductive Health Hazards

Child-siring is as significant as child-bearing, says geneticist.

One of the most important realizations by geneticists during the last few years is that congenital abnormalities in offspring can be caused by their fathers' exposure to toxic substances, a geneticist told WOHRC's science writers' workshop in May.

"There are known chemicals, known drugs, known industrial settings and environmental agents that will affect the reproductive process in males as well as in females.

"We have to stop listening to talk about 'child-bearing,' and start talking about 'child-siring,' because it is equally vulnerable and must be protected," said Dr. Rochelle Tyl, a researcher at the Chemical Industries Institute of Toxicology in Maryland.

Dr. Tyl told the group of newspaper, magazine, radio and TV writers invited to the workshop that lead, vinyl chloride, DBCP, anesthetic gases, kepone and carbon disulfide are among the chemicals harmful to male reproductive cells. Some, such as DBCP and anesthetic gases are also harmful to females, but the lists are not identical, she said.

Seven percent born abnormal

Some 7 percent of all U.S. children are born with recognizable abnormalities. A year to ten years after birth, abnormalities observed in development may raise that figure to 10 percent, Dr. Tyl reported.

Statistics on the causes of birth defects were also reported by Dr. Steven Stellman, a vice-president of the American Cancer Society, who opened the sessions. Ten percent of these defects are due to environmental factors already known, said Dr. Stellman. Twenty-five percent are caused by genetic and chromosomal abnormalities probably not related to the environment. Causes for the remaining 65 percent are unknown.

Cancer researchers are particularly interested in birth defects, said Stellman, because studies have shown that children born with birth defects have a greater tendency than others to develop cancer in later life. The same substances in the environment may be the cause of both, he observed.

The best studied teratogens—substances that harm the fetus after conception—are drugs, said Stellman. They include the antibiotic tetracycline, as well as drugs given to treat thyroid conditions and epilepsy. Streptomycin is known to cause deafness, sex hormones such as oral contraceptives to cause heart defects, and anti-coagulants to cause mental retardation.

If women who take drugs are at risk, noted Stellman, perhaps also may be workers in drug manufacturing who are subjected to greater exposures for longer periods of time.

At risk too, he said, are those who work with certain chemicals such as DBCPs which have been used as pest killers, particularly in Oregon and California. In the early sixties, it was simply "known" that men who manufactured these chemicals at the Occidental Chemical Company in California didn't have children. Later studies at the Dow and Shell chemical companies confirmed this, and revealed the reason—a zero sperm count in some workers exposed to DBCPs.

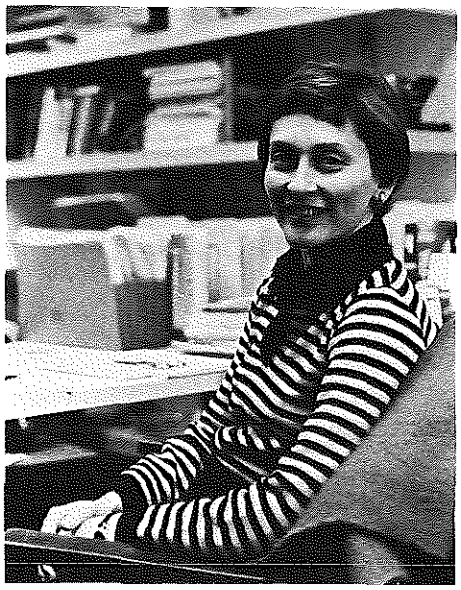
Cigarette smoking has also been identified as dangerous to the fetus, Dr. Stellman reported. Although specific cause and effect are not clear, many studies point to the fact that smoking seems to cause spontaneous abortions and infant deaths, and is a risk factor in sudden infant death syndrome.

Dr. Jessica Davis, a Cornell University geneticist and pediatrician who counsels parents at North Shore Hospital, described and showed slides of some of the malformations that she sees. It is very frustrating, she commented, after many years in the field to still know so little about their causes.

Besides drugs, she reported, the factor most known about as a cause is massive radiation. However, the effect of low level radiation on such workers as laboratory technicians is still unknown.

Lessons from Hiroshima

Much has been learned, Dr. Davis said, from the thirty-year study of people present at the bombings of Hiroshima and Nagasaki. The closer the parents were to the blast, the more serious were the defects in their offspring. There were more miscarriages, more retardation in growth, more smallheadedness and malformation of the central nervous system.



Mary Sue Henifin

Joan Bertin of the ACLU spoke at the public policy session of the workshop.

However, for the survivors as a whole, there was no increase in the number of chromosomal abnormalities or birth defects in subsequent births, said Dr. Davis. "But these figures are inconclusive," she warned, "because many of the people exposed elected not to have children."

Other causes of abnormalities noted by Dr. Davis are infectious diseases, such as rubella, nutritional deficiencies and excesses, alcoholism, maternal metabolic and endocrine imbalances, such as those that occur in diabetes and epilepsy, and extremes in temperature such as those caused by high fever or sauna baths.

Reporting on new short-term tests used to discover the relationships between chemicals and birth defects, Dr. I. Bernard Weinstein of the Columbia University Cancer Center and School of Public Health noted that there are about 60,000 chemicals in widespread use, with a thousand new or reformulated ones introduced each year.

With traditional testing, "it costs several hundred thousand dollars to test one compound in one species," he said. "You could populate a whole new planet with the number of rats and mice you would need to discover all the hazards. That is why short-term tests are so

continued on page 8

News from Italy and Malaysia

Eyesight of Malaysian Rubber Workers Is Endangered

Thousands of Malaysian women rubber workers perform a skilled task that seriously affects their eyesight, according to a prominent physician now in this country.

Dr. A. Manoharan, medical director of the Harlem Hospital Center in New York who served as a Malaysian health officer in the 1960s, recently described the problem in a report, which he also illustrated, prepared especially for *WOHRC News.*

Malaysia is the world's largest producer of natural rubber, Dr. Manoharan explained. There are about a quarter of a million rubber workers, a large proportion of whom are women.

Rubber is made from latex, the sap of the rubber tree. Hundreds of acres of land are devoted to rubber tree plantations. Early each morning, rubber tappers cut the bark of the trees in order to collect the latex.

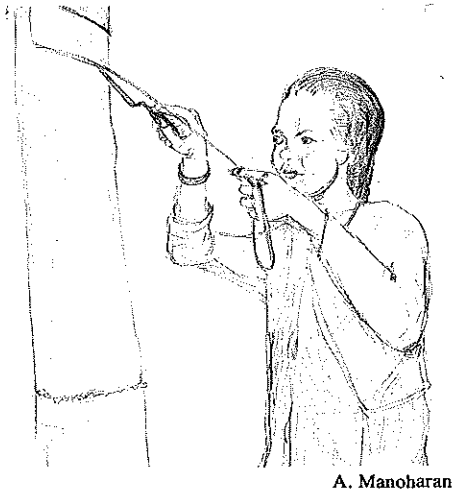
"The rubber tapper is a highly skilled worker," Dr. Manoharan says, "and she is capable of cutting a very fine sliver off the bark. If large areas of the bark are removed the tree will die."

The worker uses a very sharp knife shaped somewhat like an artist's palette knife, but with a much larger and heavier blade. When she cuts a very thin slice of the bark she removes it by pulling on the dried latex from the previous day's tapping. This hangs like a string, as shown in the illustration. As she pulls, she releases the bark, and when she reaches the end of the cut both bark and latex spring back and may hit her in the eye. This can be followed by irritation and corneal ulceration which may cause blindness.

Goggles suggested

As a health officer, Dr. Manoharan said that he tried to prevent this by having the workers wear some kind of shield or goggles, but he was never successful in making this the rule. The Union of Plantation Workers, to which the rubber workers belong, is not strong, he explained, and health measures are not a priority.

Malaysian rubber workers, added Dr. Manoharan, are also exposed to parasitic infections such as hookworm and malaria, and to harmful chemicals such as sodium arsenite.



A. Manoharan

A Malaysian rubber worker removes tree bark by pulling on dried latex.

Italian Workers Survey Threats to Health

Some 30,000 Italian women workers are being surveyed to find out if their jobs pose reproductive health hazards, according to Cecilia Brighi of the Italian trade union movement.

In a recent letter to WOHRC, Ms. Brighi describes the interesting and nontraditional approach used in the study whose purpose is to raise the workers' consciousnesses as well as to gather data.

The research is being directed and carried out by the workers themselves, she reports. In each factory, meetings are held at which women who work at the same kind of jobs and are exposed to the same kind of risks discuss their health problems and are given information about physiology and health hazards.

Women shop stewards are trained to follow up with written questionnaires on both group and individual health problems. The survey is being conducted in metal, textile and chemical industries, and workers are given paid time off in order to attend the meetings.

It is hoped that the survey will raise not only the consciousnesses of the women but of Italian trade unions, which need to pay more attention to the problems of women workers, writes Brighi who works for the national research and documentation center of the movement.

"I am also working on the lead problem," she reports, "trying to organize the Italian trade union position against the EEC (European Economic Community) proposed new regulations on lead which would set up two different allowable blood levels for men and women."

Word has reached Italy, she adds, of the "incredible" situation of the U.S. women who had themselves sterilized in order to keep their jobs. She asked for more information about this. □

NIOSH Warnings

After much controversy, NIOSH (the National Institute of Occupational Safety and Health) has received approval to publish two Current Intelligence Bulletins warning about the possible adverse health effects of benzidine-based dyes and formaldehyde (see *WOHRC News* March/April 1981.)

The new bulletins, as well as future ones, will be published only by NIOSH and not jointly with OSHA (the Occupational Safety and Health Administration), as has been the case in the past.

No reason was given for the lack of OSHA involvement, but it seemed clear that NIOSH was anxious to avoid the adverse publicity that greeted the new OSHA director, Thorne Auchter, when he ordered destruction of a partially-distributed booklet on brown lung disease because, he said, it might lead some to believe that the disease was more prevalent than it is and could promote an "adversarial" relationship between government and industry.

Occupational Health and Safety Letter, April 22, 1981

Writers *continued from page 6*

important."

It is not accurate to dismiss animal test results as inconclusive for humans, Dr. Weinstein declared. "Twenty-two out of twenty-four carcinogens for humans are also carcinogens for rats." DES was a known carcinogen and teratogen in animals ten years before it was recognized as such in humans, he noted.

"Protection" is discrimination

The list of companies that discriminate against women on reproductive grounds reads like a list of the Fortune 500, declared Joan Bertin of the American Civil Liberties Union at the afternoon session of the workshop devoted to public policy questions. Ms. Bertin, as director of the ACLU Women's Rights Projects, has handled such cases.

"Let us remember," she said, "that we are talking about women in nontraditional jobs—unskilled, blue-collar workers who, as women, would normally be working at minimum wage levels.

"Now, for the first time, such a woman may have a chance to work in a chemical plant, to maintain her family at a decent standard of living," Bertin pointed out. "'Who would ever have thought that *I* would be making $15,000 a year?' one such woman told me."

To deny these women the right to make decisions according to the needs of their own lives is a serious form of discrimination, charged Bertin. The implication is that women are less capable of making decisions—that they are simply childbearing vessels.

"The doctrine of fetal supremacy has ominous overtones," she commented. "When we see a company looking exclusively at one kind of injury we should be suspicious. Why should there be a different standard for the fetus than for the worker?"

Instead of barring workers from jobs, Bertin recommended that both men and women be allowed voluntary temporary transfers for the period of time when they choose to start having children. Other alternatives might be expansion of temporary disability payments, work sharing, job rotation and insurance of the employer against birth defects arising from exposure of workers on the job.

"There is always some cost," Bertin noted. "The question is, who shall bear it? It should be the employer, because then it is passed on, and society as a whole makes the ultimate decision, not the worker alone."

Union protections described

Arlene Ezratty, a vice-president of the National Union of Hospital and Health Care Employees, who also spoke at the afternoon session, described the ways in which her union protects employees, including education and grievance and arbitration procedures.

All NUHHCE contracts guarantee paid maternity leave, Ezratty noted, but radiologists are given up to nine months. The union had suggested having the hospitals test women members in hazardous occupations for pregnancy every month, she said, so that they could make informed decisions about whether to take a leave of absence or change to another department. But the members protested that testing would be an invasion of their privacy.

Dr. Leon J. Warshaw, a leader of the New York Business Group on Health, an employer's organization, said that he saw some progress in industry, but pointed out that most workers are situated in small, unorganized shops where the employer does not have the facilities to protect them, nor the employees the power to negotiate.

There is a great variation in employer attitudes, he said, "from responsibility to venality. You can find what you want."

As a veteran occupational health researcher and writer, Dr. Warshaw discussed some of the basic policy questions in the field. An important one, he said, is how much of our resources should be devoted to testing the staggering number of new chemicals introduced each year and how much should be devoted to more basic research.

"We are already pulling scientists out of academia and basic research," he pointed out.

Diana Chapman Walsh of the Center for Industry and Health Care at Boston University, who chaired the session, discussed the conflicts facing policy makers trying to ensure both workers' rights and the health of the unborn. Some of the problems she termed "intractable."

There seems to be a consensus on the necessity of protecting our genetic heritage, said Ms. Walsh, but "the consensus evaporates when we try to define priorities."

A book based on complete transcripts of the sessions will be available. □

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